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An examination of rural Iowa secondary school principals' self-efficacy and other related factors for meeting the needs of students at risk of school failure

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An examination of rural Iowa secondary school principals' self-efficacy and other related factors for meeting the needs of students at risk of school failure

by

Vera Lynette Banks Lang

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1994

DEDICATION

This dissertation is dedicated to:

My parents: my beloved father, Mr. Odis Banks, who passed away on January 14, 1994. His unfaltering faith inspired and guided me toward fulfilling this task. Words will never be able to express such great loss. His memory is eternal.

My mother, Mrs. Earselene Banks, for her love and continuous support "all day long."

My daughters and grandson: Rosalind Yvette Lang, Sherry Michelle Lang, and Terry Ray Sims, Jr., for whom this study was done primarily as an inspiration for them to be successful and work toward their desired goals.

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CHAPTER 1. INTRODUCTION

Students at risk of school failure or at risk of limited life options due to under education have become a major national, state, and local concern for educators. About forty percent of the American student population is comprised of at-risk students (Davis & McCaul, 1991). According to Davis and McCaul, there has been a steady increase in the number of students who are living in poverty, homelessness, and situations where there is child abuse and neglect. Reed and Sautter (1990) contend that one out of five children will go to bed hungry, sick, or cold in America, while nearly one-half of all children at some time will experience a parent separation or divorce before the age eighteen. They maintain that by the year 2010, these students, who were once the minority, could become the majority student population in our schools.

Typically, students who are considered at risk are those in urban centers, but the problem goes beyond urban centers. A recent First in the Nation of Education (FINE) study (Licklider, 1992) revealed that ten percent of Iowa's rural secondary school students were formally identified at risk of school failure or under education. The study estimated there are an additional ten to twenty-five percent more students at risk who have not been formally identified. These students are now a focal point for educators across the country, including Iowa. Much work must be done to assure that these students will receive a quality education.

Principals are important if we are to meet the needs of students at risk of school failure. Principals have a great impact on schools and the success of children. Their main function is to create good schools (Smith & Andrews, 1989; Wiles & Bondi, 1986). By creating good schools, principals can use their professional knowledge and skills to foster conditions where all children can grow to their full potential and are given an equal opportunity to succeed in life (Smith & Andrews, 1989).

A major role of principals is to help teachers meet the needs of and fully educate all children. Principals must be ready to carry out this task. They must be ready to direct and improve the instructional program so students can achieve at higher levels. Principals must help teachers identify these students and help them understand the characteristics of these students. They must be ready to help raise teachers expectations and keep them high. Principals must provide meaningful leadership for teachers.

To provide meaningful leadership, principals need to have a high level of self-efficacy for working with at-risk students. Bandura (1982) defines self-efficacy as one's perception of his or her ability to affect valued outcomes through personal effort. Bandura posits that a sense of efficacy helps determine how much effort people expend, what decisions they make in determining the task they choose, and how long they will persist in performing a task. If one has a strong sense of efficacy, he or she is more likely to engage in challenging activities or tasks that might require more effort on the part of the individual to accomplish a given task. If one has a low sense of self-efficacy he or she will avoid tasks that will exhibit his or her deficiencies. Thus, it can be hypothesized that if principals possess a high sense of self-efficacy they will seek and perform challenging tasks that promote the success of at-risk students. Principals who exhibit a sense of low self-efficacy are more likely to avoid the tasks or, if they choose to act, are less likely to persist.

It also appears that principals' beliefs about students' capabilities, their responsibility acceptance and willingness to change as the needs of students change, as well as their knowledge base to impact change, are related to principals meeting the needs of at-risk students. Principals must believe that at-risk students exist and that they can achieve at higher levels. Further, principals need to be committed to the task and must be able to provide leadership to help at-risk students succeed.

Statement of the Problem

Over the last two decades, Iowa, like the rest of the country, has experienced a dramatic increase in the number of rural students at risk of school failure. Concern for these at-risk students has been a focal point of educators and policy makers. Educators cannot afford to ignore these students. To assure that all Iowa children receive a quality education, Iowa code, Article 280.19 was adopted in 1988 to serve as a vehicle for providing support to students who were not achieving success in school. According to the First in the Nation of Education (FINE) study (Licklider, 1992), the Iowa Department of Education identified students at risk as, "anyone experiencing difficulty mastering the language, academic, cultural, and social skills to reach the education levels of which they are capable" (p. 2).

School districts provide various kinds of programs to support students at risk of school failure. Each program requires teachers to learn more about what is needed for them to be more effective in meeting the needs of students. This is crucial to both principals and teachers. Educators know that self-efficacy makes a difference in determining the challenges principals make and how persistent they will be in performing the challenges to meet the needs of at-risk students. Therefore, it is essential that principals' self-efficacy in working with rural secondary school students be assessed.

The problem for this study is threefold: (1) to determine rural Iowa secondary school principals' levels of self-efficacy and levels of additional factors believed to be related to their abilities to meet the needs of at-risk students; (2) to determine the relationships between and among rural Iowa secondary school principals' self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change in order to meet the needs of students at risk of school failure, and (3) to determine if self-efficacy and problem acceptance, preparedness, student potential orientation, and responsibility acceptance predict principals' willingness to change to meet the needs of at-risk students.

Purpose of the Study

This study focused on rural Iowa secondary school principals' perceived self-efficacy for meeting the needs of students at risk of school failure. Five other factors believed to be related to principals' perceptions of their abilities for meeting the needs of at-risk students were measured in the study: (1) preparedness; (2) problem acceptance; (3) student potential orientation; (4) responsibility acceptance; and (5) willingness to change. One purpose of the study was to determine the relationships between and among the principals': (1) preparedness; (2) self-efficacy; (3) problem acceptance; (4) student potential orientation; and (5) responsibility acceptance and their willingness to change to meet the needs of at-risk students. Data were analyzed to determine if age, gender, years of principal experience, level of education, and grade level of school influenced the six factors believed to be related to rural Iowa secondary principals' ability to meet the needs of at-risk students.

Assumptions

The study was guided by the following assumptions.

1. The principals surveyed were honest and accurate in their responses.
2. The instruments used in the surveys were reliable and valid.
3. Principals' self-efficacy has a direct bearing on student achievement and the success of at-risk students.

Research Questions

Nine research questions guided the investigation and the development of hypotheses in the study. Research questions one through six were addressed by analyzing descriptive statistics. The research questions for the study are provided below:

1. To what extent do participating rural Iowa secondary school principals perceive themselves as efficacious (**Self-Efficacy**) in meeting the needs of students at risk of school failure?

2. To what extent do participating rural Iowa secondary school principals believe that students at risk of school failure is a problem issue (**Problem Acceptance**)?
3. To what extent do participating rural Iowa secondary school principals perceive themselves to be prepared (**Preparedness**) to meet the needs of students at risk of school failure?
4. To what extent do participating rural Iowa secondary school principals believe that all students are capable of learning (**Student Potential Orientation**)?
5. To what extent do participating rural Iowa secondary school principals believe it is their obligation to help students meet success in school (**Responsibility Acceptance**)?
6. To what extent are participating rural Iowa secondary school principals willing to change their personal and professional practices (**Willingness to Change**) to meet the needs of students at risk of school failure?
7. Are there significant differences between participating rural Iowa secondary school principals' self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students across the following categories:
    a. Age
    b. Gender
    c. Total years of principal experience
    d. Grade level of school
    e. Level of education
8. Are there significant relationships between and among participating rural Iowa secondary school principals' levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of students at risk of school failure?

9. What are the best predictors of participating rural Iowa secondary school principals' willingness to change to meet the needs of students at risk of school failure?

Hypotheses

Seven hypotheses were developed to answer the research questions posed in this study. Research questions one through six did not require inferential statistics, since there were no hypotheses to be tested. The hypotheses presented below correspond with research questions seven through nine, respectively, and are presented in the null form.

1. There are no significant differences between participating rural Iowa secondary school principals who were 26-30, 31-35, 36-40, 41-50, 51-60, and 61 or older and their levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.
2. There are no significant differences between participating rural Iowa male and female secondary school principals and their levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.
3. There are no significant differences between participating rural Iowa secondary school principals who had 0-8, 3-6, 7-10, 11-15, and 16 or more total years of experience and their levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.
4. There are no significant differences between participating rural Iowa secondary school principals with Master's, Specialist, or Doctorate and their levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.

5 There are no significant differences between participating rural Iowa secondary school principals whose grade levels of school are 6-8, 9-12, and 6-12 and their levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.

6. There are no significant relationships between and among participating rural Iowa secondary school principals' levels of self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of students at risk of school failure.

7. Self-efficacy, preparedness, problem acceptance, student potential orientation, and responsibility acceptance do not predict participating rural Iowa secondary school principals' willingness to change to meet the needs of at-risk students.

Factors

Principals' perceptions on six factors were measured for this study. These factors include: (1) self-efficacy, (2) problem acceptance, (3) preparedness, (4) student potential orientation, (5) responsibility acceptance, and (6) willingness to change. In addition, demographic factors, i.e., age, gender, years of principal experience, level of education, and grade level of school were examined to determine the extent to which they may influence the principals' self-perceptions. Table 1 lists a description of each factor used in the study. Numbers enclosed in parentheses at the end of each factor's description refer to the item numbers as found in the final instrument (Appendix A).

Delimitations of the Study

The broad objective of the present study was to examine participating rural Iowa secondary school principals' perceived self-efficacy to meet the needs of students at risk of school failure. The study encountered the following delimitations.

Table 1. Definition of factors

Factors	
1. Self-Efficacy	Principals' beliefs that they can have positive effects on the learning and achievement of students at risk. Self-Efficacy is measured by 4 items (9d, 9e, 9f, 9j).
2. Problem Acceptance	Principals' beliefs that students at risk of school failure is a problem issue. Problem acceptance is measured by 4 items (1a, 1b, 1c, 1d).
3. Preparedness	Principals' degree of knowledge, training, and experience necessary to help students achieve and succeed. Preparedness is measured by 6 items (1e, 1f, 1g, 1h, 3b, 3f).
4. Student Potential Orientation	Principals' beliefs that all students are capable of learning. Student potential orientation is measured by 3 items (2a, 4a, 4b).
5. Responsibility Acceptance	Principals' beliefs that it is their obligation to help students at risk meet success in school. Principals' responsibility acceptance is measured by 5 items (5a, 5b, 5c, 5f, 8a).
6. Willingness to Change	Principals' willingness to change personal and professional practices to meet the needs of students at risk. Principals' willingness to change is measured by 4 items (8c, 8d, 8f, 8i).
7. Demographic Variables	Descriptive information about the respondents to the survey. Demographic measures include age, gender, years of principal experience, level of education, and grade level of school.

1. After a review of the literature, the factors were selected and defined. The study may not contain all factors related to principals' effectiveness in working with students at risk of school failure and self-efficacy.
2. The study was limited to rural Iowa secondary school principals who voluntarily completed the survey instrument.
3. The study does not attempt to measure or identify rural Iowa secondary school principals' specific behaviors to determine their efficaciousness.
4. The findings of the study cannot be generalized for all Iowa secondary schools.

CHAPTER 2. REVIEW OF LITERATURE

During the last decade, the number of students at risk of school failure or at risk of limited life options increased dramatically. Statistics from educational, social services, and medical institutions all point to upward trends of joblessness and various forms of social dependency by a troubled generation of students (Rumberger, 1987). In urban and rural school districts across the country, educators are faced with the problem of providing educational programs to students who are influenced by a myriad of obstacles that diminish students' educational options placing them in high risk situations.

At-risk students were once a problem unique to diverse populated urban areas that contended with a disproportionate number of social cues (Natriello et al., 1990). But these and other factors have crept into rural areas (Helge, 1991). Iowa, like the rest of the country, has experienced an increase in the number of students who are at risk of school failure (Licklider, 1992). Unfortunately, it may be that rural educators have been ill-equipped to address the issues which place students at risk of school failure.

Throughout the United States, rural school districts are at various stages in identifying and providing support to rural at-risk students, but little attention has been given to the needs of educators who work with these students on a daily basis. Teachers and principals are very critical to the success of at-risk students (Germinario et al., 1992). Little is known about the needs of the teachers and principals who teach and supervise these students. Even less is known about principals' perceptions of their ability and how efficacious principals perceive themselves to be when working with at-risk students.

For students to be successful, principals must create conditions where children can receive an equal opportunity to succeed and grow to their fullest potential and succeed in society (Smith & Andrews, 1989). Principals must accept the responsibility for students'

learning and provide teachers with leadership that will promote success for all students (Fullan, 1990).

To address problems of rural at-risk students, principals must provide direction and support. Principals are the catalyst for helping teachers enable students to achieve their maximum potentials, and they provide the leadership enabling teachers to maximize their potential to help at-risk students be successful (Fullan, 1988). A challenge for all principals is how to initiate learning interventions to increase the learning of all students (Ogden, Germainario, 1988) and to dispel the myth that only certain students are capable of learning. To improve education for all students, especially rural secondary at-risk students, there is a need to know principals' beliefs about working with these students. Do they have high expectations for students and teachers and keep them high? Principals must help teachers identify these students and help them understand the many characteristics that comprise the likelihood of these students being successful in school. Principals must have the ability to lead teachers and be ready to direct and improve the instructional program where the students can achieve at higher levels (Fullan, 1991; Germinario et al., 1988).

If principals are to provide badly needed leadership, they must believe that all students can learn and believe the efforts they expend for seeing that students learn are effective. Principals must possess high levels of self-efficacy. Self-efficacy (Bandura, 1977) provides a framework for examining the extent to which principals believe their efforts will be successful in working with at-risk students. Self-efficacy is the belief in ones own capabilities to perform certain behaviors that will reach a desirable outcome. Bandura (1977, p. 193) contended that self-efficacy operates when an individual faces a task and determines that a certain course of action will cause certain outcomes. If principals possess high levels of self-efficacy, they will seek and perform challenging tasks so that at-risk students will succeed. Principals' beliefs about at-risk students and what they achieve at higher levels, beliefs about their students' capabilities to learn, and principals' accepting the responsibility for these students are related to

principals' efficacy. In addition, the importance of principals' commitment to the profession and their willingness to change and create conditions for teacher development are necessary in helping at-risk students be successful (Cuban, 1989).

The review of literature provides an overview of recent and relevant information of the factors which anchored this study: (a) At-Risk Students, Definitions; (b) Rural At-Risk Students, How are they Different from Urban At-Risk Students; (c) Self-efficacy; (d) The Role of the Principal and At-Risk Students; (e) How Principals Influence Teachers; and (f) Other Factors Related to Principals' Perceptions for Meeting the Needs of At-Risk Students.

At-Risk Students

The number of students at risk of school failure or at risk of limited life options due to lack of education is increasing at an alarming pace. These students are at-risk of not making a successful transition to productive adult lives. In our current society, every student may be at risk, at sometime during his/her school years, because of some stresses that may occur in life (Willis, 1989). Schools face a serious challenge in dealing with this growing population of students.

Who are these students? According to Slavin, (1989) "at risk" is both ambiguous and is never precise, and is certain to mean different things to different people. Presseisen (1988) supports earlier studies that the at-risk label has been attached to American students who have experienced difficulty or failure in careers as learners. He feels these students have been associated with being culturally deprived, of low socioeconomic status, impoverished, underprivileged, disadvantaged, low achiever, and remedial students. According to Presseisen the at-risk "label denotes a medical connotation which suggest that the youth population is threatened by external danger, with the menace being out of control and that a certain group is in jeopardy of becoming infected" (p. 20).

Olson (1987) and Slavin (1987) defined at-risk students as those students who were not likely to successfully complete high school. However, Slavin's definition is based on the fact that students are unlikely to graduate based on some risk factors. These factors could be low achievement, retention in grade, behavior problems, and poor attendance. Willis (1989) views at-risk as those students who fail to complete high school and/or fail to attain the knowledge and skills sufficient to continue their education beyond high school or to be employed. A study done by Phi Delta Kappa and published in the Kappan (Frymier & Gansneder, 1989) defined at-risk students as children who are likely to fail, either in school or in life.

> For example, if a student fails a course in school, is retained in grade, or drops out of school, that student is at risk. Likewise, if a child uses drugs, has been physically or sexually abused, or has contemplated or attempted suicide, that child is also at risk. Failure — in school or in life — is evidence that a youngster is at risk (p. 143).

Others have described at-risk students in terms of poverty, homelessness, abuse, race, and ethnicity (Davis, McCaul, 1991). In an attempt to address the problems of at-risk students, the Iowa Department of Education has defined at-risk students as any student having difficulty mastering language, academic, cultural, and social skills necessary to reach the education levels of which they are capable (Iowa Department of Education, 1990). Slavin et al. (1989) identified three circumstances in which students are likely to be referred to as at risk: (1) students who leave school with an inadequate level of skills; (2) students who are not achieving the basic skills necessary for success in school or adult life; and (3) students who are eligible for compensatory or special education. Levine (1986) posits there is really no acceptable definition for at-risk students. But he defines at-risk students as those students whose poor performance hinders their success and frequently leads to withdrawal from school.

It is difficult to develop one universe definition to fit the needs of those who may claim to have an interest and investment in at-risk students. However, the definitions as pointed out in this section do demonstrate an awareness of at-risk students. Caution must be made when identifying these students. All students at some time may be at risk. Regardless of any definition of at-risk students, this population of students is continuing to grow in large numbers and in troubling proportions within the schools. According to Pallas et al. (1989), the number of at-risk children from 0-17 years of age is expected to increase from 62.8 to 72.6 million — an increase of 17% by the year 2020. Presseisen (1991) and Davis and McCaul (1991) concurred that if America doesn't do something drastic for this population of at-risk students, they will continue to increase. Natriello et al. (1990), identify several factors associated with at-risk students.

Social Factors of Risk

There are five major factors that may serve as precursors to risk: poverty status, family composition, racial/ethnic identity, mother's education, and language background (Natriello et al., 1990; Davis & McCaul, 1991). Students may opt to engage in behaviors that are associated with risk. These behaviors include: substance abuse, alcohol, sexual promiscuity, violence, truancy, and teenage sex (Ogden & Germinario, 1988). While these factors may not condemn a youth to school failure, the presence of one or more may increase the students' likelihood of being at-risk. Children who may be identified on the basis of one factor are more likely to be identified on the basis of other factors. Educational failure of students increases when there is more than one factor. An explanation of five major factors of risk follows.

Poverty

One of the most significant factors associated with risk is poverty. Children in the United States represent the largest and fastest growing group (Reed & Sautter, 1990). According to Reed and Sautter (1990), the younger the children, the greater the chance they

will be poor in this country. Children who begin life in poverty are more likely be at risk throughout childhood. More than 20% (12.4 million) of American children under 18 years of age are living below the poverty line (Natriello et al., 1990). Statistics indicate that 46% of minority children are more likely to be living in poverty. Pallas et al. (1989) indicated by the year 2020 poverty is expected to increase upto 37%.

A generation after President Lyndon Johnson declared war on poverty, nearly one-fifth of all American children will grow up poor, sick, hungry, and be illiterate. Poverty is linked to school performance. Pallas (1989) reported that children who are also poor are more likely to perform poorly in school and are more likely to drop out of school. Pallas also noted children living below the poverty line are twice as likely to be retained a grade compared to children in non-poverty families.

Family composition

The family composition in America today is quite different from what it was in the 1950's and 1960's (Davis & McCaul, 1991). In 1986, 16% of children existed in the traditional family with two biological parents, with the father working and mother at home (Wiles, 1986). Five years later, about 6% of the United States traditional families existed (Hodgkinson, 1991). Nearly one-half of all children will experience a family divorce before they reach 18 years of age (McCarney, 1991). Because of an increase in divorce and in the number of births to single mothers, about 60% of all children will live in a single-parent family for some period of their lives. Studies indicate 15.3 million children lived with one parent, in 1985, specifically the mother. The number of children not living with both parents is expected to increase from 16.2 million to 21.1 million by the year 2020. This is an increase of 30% (Pallas et al., 1989).

Iowa, like the rest of the country, has experienced an increase in the number of single parent families. The number of single parents has increased by 39.7%. According to the Iowa Kids Count (1991), in 1980 single parents with children represented 12.9% of all families in

Iowa; and in 1990, single parents with children represented 19.7% of all families. According to Ellwood (1988), long-term poverty is characteristic of single parent households. The increase in the number of single parents thus indicate, to a large degree, that a great proportion of students are likely to be living in poverty and are likely to be at risk of school failure.

Poorly educated mother

The mother's characteristics are important in structuring the educational environment at home. Pallas (1989) revealed that children of poorly educated mothers have been found to perform worse academically and leave school earlier than children of better educated mothers. According to Barro and Kolstad (1987), children of mothers who dropped out of school are two to three times more likely to drop out of high school compared to children with mothers who had more schooling. The more education the mother has, the more comfortable and interested she is in her child's work. The mother will have more school contact and is likely to be more interested in her children's academic progress. As a result, these children will do better and stay in school longer. Conversely, mothers who performed poorly when they were in school or dropped out of school, find school threatening or intimidating and, as parents, are less likely to concern themselves with the academic success of their children. Poorly educated mothers increase the likelihood of their children being poorly educated. Thus, maximizing the mother's education is significant to the success of her children.

Race and ethnicity

Race and ethnicity are factors associated with risk. According to Natriello, et al. (1990) race and ethnicity are probably the most commonly known factors associated with risk. They indicated not all children from racial/ethnic minority families are at risk, however, these factors along with poverty increase the likelihood of the students being at risk of school failure. Davis and McCaul (1991) reported that black and Hispanic children are more than likely to live in poverty-level households, single parent families and live with poorly educated parents, especially the mother. A study conducted by the National Assessment of Educational Progress

indicated that minority students have failed to succeed in school compared to their counterparts (Weber, 1982). This study also indicated black and Hispanic children ages 9, 13, and 17 earned lower scores in reading, writing, and mathematics compared to white children. Hispanics in the United States have the most serious problems with dropouts. Research reveal that blacks and Hispanics were more likely to leave high school before graduation than whites.

Limited English proficiency

Children with limited proficiency in English, and who live at home where English is not spoken, face barriers to success in schools, especially in schools where English is the major language (Fillmore & Valadez, 1986). Pallas (1989) estimated that 1.2 million to 2.6 million children in the United States had a proficiency in English. The Bilingual Education Act of 1984 (Natriello et al., 1990) defined an individual as "limited English proficient" based on two categories: (a) if the person comes from a family where the main language spoken is not English; and (b) if the person has serious difficulty understanding, speaking, reading, and writing English thus limiting an individual's opportunity to learn in the classroom. The fact that these children are limited in their language highlights the importance of the family, community, and the school. Much similar to poorly-educated mothers, parents who do not speak English are handicapped by their ability to assist their children in their school work. According to Pallas (1989), by the year 2020, approximately 6 million students in the United States will not speak English as the primary language.

Schools are faced with a serious challenge in dealing with the growing number of students at risk of school failure. Unfortunately, there is a portion in every school population that has been associated with risk based on some factors reviewed in this section. According to research, all children are at times at risk of school failure (Ogden & Germinario, 1992). A projected number of students at risk will increase approximately 17% by 2020 (Pallas et al., 1989). It is important to note that not all children who are poor, who are minority, or who come from single parent homes, are at risk.

Early research about the problems of at-risk students have centered mostly on urban children. However, children in rural areas face a greater chance of being at risk. Rural children face some of the same dilemmas as urban at-risk children. The next section will provide a discussion on rural at-risk students.

Rural At-Risk Students

Often, students who are considered at risk are those in urban centers (Presseisen, 1990). However, students in rural areas may be more at risk than those in urban centers. A rural district is defined as a district where the inhabitants are fewer than 150 per square mile or where the community population is 2,500 or less (Helge, 1985). Two-thirds of America's schools (67%) and one-third of the nation's children are in rural areas. Rural schools contain a higher percentage of students who are at risk than non rural (Helge, 1991). According to the First in the Nation of Education study (Licklider, 1992), 10% of the secondary school students in Iowa has been identified as at risk of school failure. She also found that there were an additional 10% to 25% of students who were at risk of school failure, but had not been formally identified.

Who are rural at-risk students? Helge (1988) identified five factors that are considered as high risk conditions which may contribute to rural students being at risk: poverty, isolation, high unemployment, easy access to fire arms, and limited availability of entertainment. In another study (1989), Helge indicated that while "one in every four American children under the age of six are living below the poverty line, in rural areas 30% of the farm population and 24% of the non-farm population live in poverty" (p. 10). Additionally, a 1990 report conducted by Helge identified other characteristics that may contribute to rural students being at risk. Low self-esteem and/or the existence of a dysfunctional family are very dominating factors of at-risk. Low self-esteem has been highly associated with child abusers, delinquents, and victims of child abuse (Helge,

1990). The studies conducted by Helge revealed a positive relationship between rural high risk students' self-esteem and positive academic grades, school attendance, and social skills. She also found that teenage pregnancy, delinquency, depression, substance abuse, illiterate families, and child abuse contributed to poor self-esteem in rural at-risk students. According to Helge, usually one or more of the factors mentioned above are present in rural at-risk students.

Why are these rural students at risk? According to Helge (1990), rural students become at risk for many reasons. Many rural communities experience economic and social difficulties that contribute to the development of at-risk students. Vast land areas, geographic conditions, scattered populations and inadequate services are obstacles to curriculum and program development. The isolation of many rural areas, especially those in remote situations with sparse populations, create conditions for rural students at risk. Social problems of students are inadequately addressed by medical, social, psychological, recreation, and medical services. Such social problems may be drug and alcohol abuse, sexually transmitted diseases, homeless individuals, crime, and the disappearing American family. A majority of the schools do not employ school counselors, largely for financial reasons. Federal and state budget cuts have reduced the number of services that are provided to the rural students.

Helge's (1990) survey of 1,200 urban, rural, and suburban administrators revealed several differences regarding at-risk students. Three hundred twelve administrators responded to the survey providing estimated percentages of students identified in 12 high-risk categories. The middle school data revealed that rural at-risk students compared to non-rural were worse off when it came to depression, poverty, children of alcoholics, living in dysfunctional families, migrant, and being minority or poor. The high school data revealed that non handicapped rural students have a harder time than urban students in areas, i.e., crime, depression, poverty, children of alcoholic parents, being from a dysfunctional family, migrant, high risk for dropping out of school, being sexually active,

minority and/or poor. In almost all cases, rural at-risk students were worse off than non-rural children in 34 out of 39 statistical comparisons. Helge (1990) maintained that the "social and economic stresses on rural students are at least as difficult as those of urban youth" (p. 9). Other studies have indicated that dropout rates and teenage pregnancy rates are higher in rural than non-rural areas (1984).

The majority of unserved and underserved children are located in rural America (Helge, 1984). The worst thing educators can do is ignore the increasing problems of this population of students. Special attention is needed in order that these students feel accepted and are successful in school. Principals are key people for ensuring that all students, especially the rural at-risk students experience success.

Self-efficacy

Since 1977 when Bandura presented a paper on the construct of self-efficacy, its implications for understanding human behavior has become a focus in psychology (Maddux & Barnes, 1984) and education (Gibson & Dembo, 1984; Schunk, 1984). Bandura presented the theory that explained the relationship between cognitive processes and changes in behavior and proposed that behavior is influenced not so much by external factors in a given situation as by internal thought processes. Bandura (1977) contends that self-efficacy plays a major role in people's lives because it influences their thought patterns, controls behavior, and emotional reactions. Bandura (1977; 1982) stated self-efficacy is a person's belief that he or she can carry out a particular behavior to reach a desired outcome. In education, researchers have focused on the relationship between self-efficacy and academic performance or choices. Findings have important implications for practitioners and school career counselors (Lent & Hackett, 1987). The construct self-efficacy provides a framework by which principals can examine the degree to which their efforts are likely to succeed; and their motivation to act as an

instructional leader. This section will review self-efficacy as essential for future outcomes as well as the self-evaluation reactions of the person.

Self-efficacy has been directly related to motivation (Bandura, 1977). Motivation is greatly influenced by a person's cognitive belief. A person's sense of self-efficacy will determine how long a person will persist in coping with the behavior, and how long the effort will be expended in the face of the obstacles that are encountered. Self-efficacy plays an important role in people's lives because it controls behavior, thought patterns, and emotional reactions. Two aspects of self-efficacy have been identified by Bandura. They are outcome expectations and efficacy expectations. Bandura distinguishes between the two expectations. Outcome expectations are people's judgment that a given behavior will produce a specific outcome. Efficacy expectations are people's beliefs that they can successfully perform the required behavior to reach a desired outcome. Efficacy will determine what decisions individuals will make, how much effort they will expend, and how long they will persist in the face of obstacles they are confronted with. Individuals with a stronger sense of self-efficacy are more likely to engage in challenging activities, whereas those with a weaker sense of efficacy will avoid those activities that will exceed their capabilities. Four sources of information have been identified by Bandura (1977) that influence a person's perceived self-efficacy. They are as follows:

1. **Performance accomplishments:** This source of efficacy is the most powerful and influential source of information which manifests an individual's success or failure experiences. An individual's successes raise efficacy, while failures lower it. After strong efficacy expectations are developed through repeated successes, occasional failures are less likely to have a negative impact on the individual.
2. **Vicarious Experiences:** Vicarious experiences are experiences individuals maintain through observations or modeling. Individuals tend to judge their own capabilities by comparing them to the performance of others. They observe others perform threatening

activities without adverse consequences and persuade themselves they, too, can do the same activities if they intensify and persist in their efforts.

3. **Verbal Persuasion:** Trying to convince individuals they can perform certain behaviors is the most widely used source of efficacy information. However, verbal persuasion is a less effective source of information because it does not provide an authentic experiential base for individuals. Individuals are led through suggestion to believe they can cope with what has happened to them in the past. This source of information is asserted through such factors as expertness, trustworthiness, and confidence.
4. **Emotional Arousal:** Emotional arousal is the least influential source of information; it is where individuals associate their emotional states with performance. For example, an aversive emotional state such as anxiety may be associated with incompetence or failure. Expectations of self-efficacy are enhanced in situations which aversive arousal is low, and are lowered in situations involving a high level of aversive arousal.

Bandura's construct self-efficacy (1977) provides a framework for examining the degree to which principals believe their efforts will be successful in working with at-risk students. What principals do will determine how efficacious they are. Principals who have a strong sense of self-efficacy will choose challenging tasks and demonstrate a greater motivation to help at-risk students achieve success. In contrast, principals who have a low sense of self-efficacy will avoid difficult tasks that are necessary in order to meet the needs of at-risk students. Bandura (1986) clearly describes an efficacious person: "Research shows that people who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious" (p. 395).

The Role of the Principal in Working with At-Risk Students

The problems that children bring with them to school these days are often upsetting and overwhelming. When many educators chose to become administrators, they do not expect to be dealing with such matters. However, many children are at risk and educators must do whatever is necessary to improve the success of these students. Hodgkinson (1990), Wehlage et al. (1987) maintained very little can be done about the environment from which these children come, but educators can change the way things are done at the school level to provide these students with a quality education. Schools must be sensitive to the at-risk population and accept responsibility for successfully educating students who are unable to maximize their learning potential by themselves. At the school level, it is the role of the principal to make this happen.

A role of the principal is to create good schools (Smith & Andrews, 1989; Wiles & Bondi, 1986). By creating good schools, Smith and Andrews mean principals must use their professional knowledge and skills to create conditions in which all children can grow to their full potentials and are given equal opportunities to succeed in society. The role of the principal has been studied for a number of years. Previous studies, over a thirty-year period, have viewed the role of the principal as the building manager, administrator, politician, change agent, boundary spanner, and instructional leader (Smith & Andrews, 1989). According to Fullan (1988) the image of the principal within the past ten years has shifted from being a gatekeeper to an instructional leader. The term instructional leadership "refers to actions taken by the principal with the intention of developing a productive and satisfying working environment for teachers and desirable learning conditions and outcomes for all children" (Greenfield, 1987, p. 60). Much of what educators know about the role of the principal as an instructional leader has emerged primarily from effective school studies (Good & Brody, 1988). This section of the literature review will discuss the role of the principal as the instructional leader in working with all students, including at-risk students.

Critical to the success of all children, and especially at-risk students, is the role of the principal. Studies conducted by Cuban (1989) indicated that some "principals have gone past the slogans of reform to achieve outstanding results with at-risk students, and their pioneering work points to promising directions for others" (p. 29). Cuban maintains the role of the principal is to create schools and classrooms that will:

a. build attachment in students toward completing school,

b. increase students' desire to learn,

c. build self-esteem, and

d. enhance academic performance.

A consistent body of research points to the principals' role in establishing and maintaining a positive school climate conducive to students' learning and well-being (Germinario et al., 1992). Germinario et al. contend that the learning environment or climate can be conducive or detrimental to the students' success. Studies conducted by Edmonds, Comer and O'Reilly indicate that school climate contributes to student learning (Bossert et al., 1982). To ensure the success of students, a role of the principal is to assess the school climate and the needs of individual students. Principals must be conscious of the problems facing students that could possibly lead to students' potential to drop out of school. Principals must persist in their efforts to create a supportive climate that increases the self-esteem and achievement of all students, especially the at-risk students.

Principals who are strong and effective communicate high expectations where all children can succeed. Failure by the principal to emphasize high expectations for all students will, without doubt, cause negative sentiments of students to occur. The philosophy of the principal should be to take students from where they are to as far as they can go (Jackson, 1984). Principals must believe all students are important and play a vital role in providing a quality education for them to succeed.

The purpose of the school is to maximize learning for all students (Ogden & Germinario, 1988). To achieve this purpose the school must have a well-defined and appropriate curriculum. In a successful school program, principals create and develop meaningful programs that challenge students' abilities.

Edmonds (1982) effective schools research, concluded that three of the five characteristics associated with effective schools are particularly related to the role of the principal : attention to quality of instruction, pervasive and broadly understood instructional focus, and a safe and orderly climate for teaching and learning. These characteristics performed by the principal promote student learning. Edmonds identifies other characteristics of the effective schools research:

a. promote an atmosphere that is orderly without being rigid, quiet without being oppressive.
b. monitor student progress regularly.
c. hold the staff accountable for being instructionally effective for all students.
d. set and articulate clear goals and objectives.
e. demonstrate strong leadership, management, and instructional skills.
f. design and implement plans for reading and mathematics problems.

Research indicates successful urban schools that teach poor children have effective and strong instructional leaders (Edmonds, 1982). Weber (1971) conducted a comparative study of four inner-city elementary schools where reading achievement was successful. Of the eight factors examined in the study, strong leadership of principals in the schools was a major factor in its school effectiveness. Studies conducted by Brookover and Lezotte indicated that principals were assertive instructional leaders and assumed responsibility for improving student achievement (Edmonds, 1982).

In conclusion, principals are most crucial to the success of all students, whether they are rural or urban at-risk students. A major responsibility of the principal is to establish a

climate that maximizes students' learning and minimizes conditions that will impede the success of all students. Much of what the school does to promote achievement lies within the principals' hand to influence and control (Sweeney, 1982). This section has provided information that supports the role of the principal in working with all students, including the at-risk students. Principals must persist in their efforts. Effective instructional leaders make a difference in the lives of all students as well as teachers. The following section will discuss how principals influence teachers.

How Principals Influence Teachers

Teachers have the greatest impact on the success of students. As the instructional leader, the principal has an influential effect on teachers and how they respond to meeting the needs of students. A study conducted by Elliot (1992) identified behaviors of instructional leaders on four dimensions. These dimensions can have a positive influence on teachers. Elliot's study indicated the following:

1. **Communication openness:** Elliot found the principals' behavior to be a crucial factor in the principal-teacher relationship. Her study indicated that when principals demonstrate trust, belief, and confidence in them, teachers' beliefs about their own capabilities increase. Principals are perceived trustworthy when teachers are willing to communicate their feelings of ineffectiveness and use open problem solving approaches to conflicts. Teachers feel more accepted when principals support them.
2. **Team building:** Principals create collegiality among teachers when all are a part of the instructional decision-making process.
3. **Motivation builders:** Teachers want to be recognized for the positive things they do with students. This study indicated teachers often do not get the respect and recognition they deserve for their accomplishments. Principals can influence teachers' attitudes by recognizing their accomplishments.

4. **Capability to lead:** Principals who are seen as reliable leaders are more likely to gain the confidence of teachers. When this happens, teachers will communicate to the principals problems they may encounter.

The most obvious role of the principal is to facilitate good teaching (Smith & Andrews, 1992). To facilitate good teaching the principal stays abreast of new ideas, strategies, and new developments of materials for improving classroom instruction. Teachers perceive the principal to be more powerful than their counterparts because of knowledge and influence in the areas of curriculum and instruction (Lubbers, 1990). Teachers show confidence in principals who are familiar with teaching methods and are able to assist the teachers with strategies and approaches to helping students. To facilitate good teaching, principals must be able to motivate teachers so that they feel committed to expending considerable energy to assist in creating good schools for children (Smith & Andrews, 1989).

Research has found that teachers' perceptions of the principal are the "most powerful determinants of teachers' "satisfaction with their professional role " (Smith & Andrews, 1989, p.15). According to Fullan (1991), teachers' perceptions of principals are positive when the principals make frequent classroom observations, are available to discuss matters dealing with instruction, are visible, and participate in staff development activities with teachers. Teachers who expressed a positive feeling about their work conditions were more productive workers. Principals who treat teachers as partners and work to develop a professional atmosphere within their buildings are accepted by the teachers. The principals' leadership ability creates a spirit of achievement that encourages teachers to set high expectations for themselves and their students (McCormack & Larkin, 1985).

Fullan and Hargreaves (1991) contend teachers are really the key to change. There can be no improvement without the teacher. "The greatest problem in teaching is not how to get rid of the " deadwood", but how to create, sustain, and motivate good teachers throughout their careers" (p. 63). One of the approaches, they suggest, is for the principal to appreciate the

teacher as a total person. This can be achieved by principals getting to know teachers. They suggest knowing the teachers as individuals can provide principals with useful information that can identify their needs, and the kind of support, experiences, and the opportunities that are appropriate for their use.

A study conducted by Jackson (1984) on the effectiveness of two exemplary public Iowa alternative schools revealed remarkable influence principals had on teachers in their schools. Jackson reported the following information in her study.

1. Teachers described the principals as committed, trustworthy, caring, competent, democratic, and people-oriented. In one school the teachers expressed that the key to their productivity was the support, the confidence, and the freedom they received from their principal in their job performance.
2. Principals frequently visited teachers' classrooms. The frequent visits contributed to teachers not feeling threatened at the time of formal evaluations. As a matter of fact, principals were viewed as resource persons in the schools.
3. Teachers often received recognition for achievement or praise in group settings or individually. This recognition was very well accepted by the teachers and encouraged them to want to work harder.
4. Teachers shared in the instructional decision making of the school.

Teachers have a significant impact on the success of all students, especially the at-risk students. They play a key role in influencing the growth, character, and attitudes of students. What teachers do may enhance or limit a child's ability to function in society or build a base for future interactions in society and to succeed as a learner (Germinario, et al., 1988). How principals treat his or her teachers will determine how successfully teachers will be in meeting the needs of at-risk students. Therefore, it is necessary that principals create and ensure a positive and nurturing environment characterized by a tone of respect for all teachers.

Factors Relating to Principals' Perceptions for Meeting the Needs of At-Risk Students

The major focus of this study was to examine rural Iowa secondary school principals' perceived self-efficacy for meeting the needs of at-risk students. Thus far, this chapter has cited relevant literature defining and discussing urban and rural students at risk of school failure, the theory of self-efficacy, the role of the principal and at-risk students, and the influence principals have on teachers. Inherent in this study is evidence suggesting there are some factors that appear to be related to principals' perceptions for meeting the needs of at-risk students: preparedness, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students. Although the research in these areas is limited, the findings suggest that future studies of these factors might yield significant outcomes for understanding principals' perceptions for meeting the success of students, specifically the at-risk students.

Several studies have investigated the preparedness of principals as instructional leaders. Cooper (1988) conducted a study that examined the success of 149 instructional leaders. The principals were asked to assess the value of their preparation and experience in relation to their success. A majority of the principals indicated their experiences as a teacher and assistant principal were the most valuable to their success. Conversely, they indicated their formal training, e.g., graduation, education, and formal professional development had some, rather than much, value in their success. In addition, Cooper's study confirmed the professions' old saying: experience is the best teacher.

A 1988 study of 834 K-8 principals as part of a series of studies conducted every 10 years by the National Association of Elementary School Principals (NAESP), revealed that current principals are better prepared as a result of their education and experience than those principals who preceded them (Doud, 1989). The majority of the principals in this study indicated they had Master's degrees while several had completed a six-year

certification or doctoral degree program. Although all the principals had advanced degrees, this group of principals indicated that on-the job experience contributed the most to their success as a principal. They also indicated that teaching and their responsibilities as an assistant principal were the areas which contributed the most to their success as a principal. Principals in the same study were asked to check three responses from a list of 14 professional developmental needs. The majority of principals indicated a need to improve staff performance. Although the principals in this study recognized improving staff performance as a problem area, they indicated a willingness to work on this area. In fact, they indicated they were already working on this area.

Previous research indicated no relationship between principals' leadership and training (Bossert et al., 1982). However, principals did seem to agree they had short comings in their training. Bossert et al. indicated principals have inadequate preparation in the areas of instructional supervision and curriculum. Hallinger and Murphy (1987) also concurred that principals face certain barriers such as lack of knowledge of the school curriculum and lack of knowledge of instruction that hinder their effectiveness as instructional leaders.

Other critics argue that educators have long assumed that principals have the tools to provide instructional leadership simply because they were teachers. However, Hallinger and Murphy (1982) contended that preparation as a teacher does not ensure that a prospective principal is capable of helping another teacher analyze his or her teaching, improve classroom instruction, or develop/coordinate, and implement a curriculum . They concluded that university certification programs de-emphasize curriculum and instruction and provide very few skill-oriented staff development programs for principals. In an effort to address the preparedness of principals for becoming effective school leaders to meet the success of all students, especially at-risk students, new training programs are emerging for principals and universities are re-examining their graduate programs.

Throughout the literature, effective principals are considered to be key people in the success of students. The belief that all students can learn, originates with the principal and trickles down to the staff and students. However, a challenge to the principal is to dispel the myth that only certain students can learn. Gauthier (1980) commented that every school must believe that all children can learn and that teachers and administrators are capable of helping them. The previous section in this study revealed the significant successes of several schools especially those in areas where a large proportion of the students were urban poor or minorities. The results of student achievement in these schools were attributed to highly effective leaders who tended to accept the circumstantial problems of students and demonstrated very strong beliefs in students' ability to achieve success in school.

The effective school studies indicate the direct responsibility for improving the instruction and learning of students rests in the hand of the principals (Andrews & Smith, 1988). The studies also indicate that principals in schools where instruction and achievement of students are successful or improving are examples of purposeful leadership. According to Mortimore and Sammons (1987) purposeful leadership occurs where the principal, as the instructional leader, understands the needs of the students and is actively involved in the school's work. Bossert et al. (1982) indicated effective school principals are perceived to be programmatic leaders who know the learning problems of students in their classrooms and allocate resources effectively to assist them. Effective school principals accept the problems of students as well as accept responsibility for their learning.

Throughout the research, the words strong leadership are used to describe positive attributes of a principal's behavior. The principal remains the primary maker who accepts the responsibility for setting the tone and focus of the school and student achievement. In retrospect, leaders in other organizations maintain that "every person in an organization is a

leader and that each person is responsible for guiding the organization toward its future" (Kouzes & Posner, 1993, p. 175). If each person is a leader, then each accepts the responsibilities of leadership in the organization. It is not solely the manager who sets the tone and accepts responsibility for making things happen in the organization; everyone is involved in the workings of an organization. When this happens, Kouzes and Pouzes contended that every person is mutually responsible for seeing that each member lives up to and carries out the shared values of the organization. As a result, the whole organization is strengthened and receives credibility for the shared values and beliefs they demonstrate and carry out.

The role of the principal has changed over the decade from that of school manager to instructional leader (Smith & Andrews, 1988). As instructional leaders, principals see their role changing from manager to leading the school as an organization (Fullan, 1991). Principals regard their roles as being more accountable for the development of teachers and the success of students. Spillane (1989) noted there is more to being a principal than the infamous three Bs: buses, boilers, and budgets. He indicated further that teaching cannot be redefined until the role of the principal is defined. This is an indication that principals value their changing roles and are interested in moving their schools toward a better future for students. However, Fullan (1988) indicated that many principals do not fully understand the change in their leadership roles and do not feel prepared to fulfill their duties. From what has been read in the review of the literature, principals do recognize their inadequacies for being an instructional leader, and they are willing to make changes in order to have successful schools. Fullan suggests that principals need opportunities for interaction and professional development to address their changing role.

It is important to know about principals' perceptions of their abilities for meeting the success of all students. The specific factors: preparedness, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change discussed in this

section have some significant indications for understanding principals' perceptions for meeting the success of students, specifically the at-risk students. By understanding principals, we must seek to have accurate measures of their perceptions for meeting the needs of students if we are to better serve students in rural as well as urban schools.

CHAPTER 3. METHODOLOGY

The focus of the study was to determine rural Iowa secondary school principals' perceptions of their self-efficacy for meeting the needs of students at risk of school failure. Six factors relating to principals' perceptions of their ability for meeting the needs of at-risk students were measured in this study: (1) preparedness, (2) self-efficacy, (3) problem acceptance, (4) student potential orientation, (5) responsibility acceptance, and (6) willingness to change. Data were analyzed to determine if relationships existed between and among the six factors. Data were also analyzed to determine if demographics, i.e., age, gender, years of principal experience, level of education, and grade level of school provided the difference in principals' perceptions on any of the six factors.

This chapter describes the procedures and methods that were used to gather and analyze the data required for the study. It has been divided into five major sections: Background; Sample Selection; Instrumentation; Data Collection; and Data Analysis. The first section, "Background," gives an overview of the origination of the study and where the study took place. The second section, "Sample Selection," describes the population sample for the study. The third section, "Instrumentation," describes an original instrument and a modification of the instruments used to collect data for the study. The fourth section, "Data Collection," provides an overview of the methods of data collection. The last section, "Data Analysis," describes the statistical procedures for analyzing the data.

The Human Subjects Approval Form that authorized the First in the Nation of Education Foundation (FINE) research project was used for authorization of data collection for this study. The Iowa State University Committee on the use of Human Subjects in Research had previously reviewed the FINE study and concluded that the rights and welfare of the human subjects were adequately protected and the confidentiality of the participants was assured. The Human Subjects form is found in Appendix B.

Background of the Study

This study is ex post facto or "after the fact" research. The data for this study were gathered in a previous study conducted at Iowa State University. Following is a description of that research which provides the background for the current study.

With the assistance of a research grant from the First in the Nation in Education (FINE) Foundation and the cooperation of educators in rural Iowa secondary schools, Dr. Barbara Licklider of Iowa State University conducted a series of studies related to educating at-risk students and educators' readiness for meeting the needs of these students. "The overarching purpose for that research project was to improve the effectiveness and cost efficiency of secondary school efforts in rural Iowa for students at risk of school failure or at risk of limiting life options due to undereducation" (Licklider, 1992, p. 1).

One study within the previous project was designed to assess the readiness of rural Iowa secondary school educators for meeting the needs of students who exhibit at-risk behaviors or who live in circumstances that increase their risk of school failure. Rural Iowa middle/junior high and high schools were chosen for that study for two reasons: "(1) limited resources prevented the study of all schools in the state and (2) most existing research conducted about schooling for at-risk students has focused on urban schools or elementary schooling. The advisory panel for that research program (comprised of teachers, administrators, Area Education Agency consultants, and Department of Education consultants) assisted in determining which schools in the state could be considered rural. Schools from Iowa districts included in that study by the advisory panel consisted of those with fewer than 2,500 students in K-12, with the exception of two districts, that were considered suburban rather than rural" (Licklider, 1992, pp. 1, 3).

A survey research design which utilized questionnaires was employed in that study. The objectives for that study were (Licklider, 1992, p.15):

1. To ascertain the extent of local educators' awareness of the local, state, and national statistics under education of youth.
2. To ascertain the extent of local educators' awareness of the current and potential problems associated with failure to educate all children.
3. To assess the degree of educators' need to act in addressing the issue of students at risk.
4. To assess the degree of educators' personal obligation to address the issue of students at risk.
5. To assess the degree to which educators feel the district should act to address the issue of students at risk.
6. To assess the degree of educators' willingness to change personal and professional practices to address the issue of students at risk.
7. To assess the degree of educators' support for commitment of district resources to address the issue of students at risk.

The present study used information collected in the FINE study. The major focus of the present study was to determine rural Iowa secondary school principals' perceived self-efficacy for meeting the needs of at-risk students. Five other factors, believed to be related to principals' perceptions of their ability for meeting the needs of at-risk students, were examined. These factors were principals': (1) preparedness, (2) problem acceptance, (3) student potential orientation, (4) responsibility acceptance, and (5) principals' willingness to change to meet the needs of at-risk students.

Instrumentation — FINE Study

The Inventory of Educators Readiness for Meeting the Needs of Students At Risk (IERMNSR)

The development of the survey instrument for the FINE study began with a review of existing instruments. The review of these instruments and relevant literature provided the conceptual framework for developing the instrument. It was determined that the assessment

instrument would be a building level survey for teachers and principals in secondary schools that housed building levels six through twelve. The survey was designed for teachers and principals. The objectives as stated above were used to guide the identification and development of the components and items for the instrument. Items were designed in the closed form so a quantification and analysis of results could be carried out efficiently (Borg & Gall, 1989).

During July, August, and early September, 1991, items for the instrument were developed and pilot tested by a number of university professors, graduate students, and former school administrators. Five hundred forty-five items were examined for the instrument. After careful consideration by the panel, 70 items were selected. These items measured nine concepts that reflected the conceptual framework for readiness used in the FINE study. The instrument utilized a 5-point Likert scale for recording responses with 1 indicating strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree.

A number of approaches were used to field test the instrument for validity. The instrument was evaluated by faculty in the Iowa State University Research and Evaluation Section of the Department of Professional Studies in Education. Graduate students in the Iowa State University Educational Administration section who were former and present teachers and school administrators were asked to complete the instrument as a field test of the instrument. This aspect of the field test was designed to assess the readability, clarity, and validity of the instrument. This also provided information on the length of time to complete the instrument and the appropriateness of the questions. Additionally, other teachers and principals were given an opportunity to make suggestions relative to items that may have been missing from the instrument and to indicate whether they would complete the instrument if it were distributed at the school where they were employed.

Cronbach's Coefficient Alpha was used to examine the internal consistency of item sets of the instrument. The standardized item alpha for the entire set of 70 items was .70. The

following internal consistency was reported for each subset of items from lowest to highest: Set 4 – Feelings about students (.58); Set 3 – Knowledge of strategies and approaches used to teach at-risk students (.61); Set 5 – Feelings about principals' personal obligation to address the needs of at-risk students (.69); Set 6 – Support for allocating district support to address the issue of at-risk students (.72); Set 1 – Awareness of the problems associated with at-risk students (.73); Set 9 – Personal principal efficacy (.77); Set 2 – Support for action by district leadership to deal with the problems of at-risk students (.81); Set 7 – Support for changing district and school practices to better meet the needs of at-risk students (.82); and Set 8 – Willingness to change personal and professional practices to better meet the needs of at-risk students (.87). The instrument for the FINE study can be found in Appendix C.

The data for the present study were derived from responses to items selected from the set of items in the FINE instrument, (IERMNSR). The data set for the present study included responses to 26 items that were measured by six factors. A description of the factors is provided in the next section.

Selection of items for inventory of factors relating to principals' perceptions for meeting the needs of at risk students — present study

For the purpose of the present study, items were selected from the subset of items in the FINE (IERMNSR) instrument (Licklider, 1992). A factor analysis of the 70 items in the FINE instrument was completed to determine which items clustered. These clusters became the factors for this study. After reviewing the factor analysis, it was decided to select the items that measured the factors of interest for this study; twenty-six of the items were selected. The factors are preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change. A description of each factor follows.

The extent to which principals believe they can have a positive effect on the learning and achievement of at-risk students (self-efficacy) was measured by four items. Principals' beliefs that students at risk is a problem issue (problem acceptance) were measured by four

items. Six items provided information about the principals' knowledge, training and experience necessary to help students achieve and succeed (preparedness). The extent to which principals believe students can learn (student potential orientation) were measured by three items. Five items were used to measure principals' beliefs that it's their obligation to help students at risk meet success in school (responsibility acceptance). Four statements were used to examine principals' willingness to change their personal, professional practices to meet the needs of at- risk students (willingness to change). In addition to the factors, information about demographic characteristics i.e., age, gender, years of principal experience, level of education and grade level of the school was utilized for examination in this study. The instrument for this study is included in Appendix A.

Cronbach Coefficient Alphas for the present study's list of sets were used to determine the internal consistency of the items used to measure each factor. The standardized item alpha for all twenty-six items was .69. As presented in Table 2, the lowest internal consistency was "student potential orientation" (.52). The next highest internal consistency coefficients are for "problem acceptance" (.58), "responsibility acceptance" (.61), and "self-efficacy" (.68). "Preparedness" (.74) and "willingness to change" (.83) have the highest coefficients representing internal consistency. Dropping various items did not increase the internal consistency of the factors. Items for each of the factors in the instrument are listed in Appendix A.

The Sample

The data for this study were collected from the responses of the sample used in the FINE study. Principals of 506 rural Iowa secondary schools (middle/junior high and high school) were included in the FINE study. An advisory panel (comprised of teachers, administrators, AEA consultants, and DE consultants) assisted in determining which schools in

the state were to be considered rural. Schools from Iowa school districts with fewer than 2,500 students K-12, with the exception of two districts, were considered rural. Two hundred ninety-two secondary school principals from 506 rural Iowa secondary schools participated in the study. This sample represented 58% of the rural Iowa secondary school principals.

Table 2. Cronbach Coefficient Alphas for self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance and willingness to change

Concepts	N	Number of Items	Items	Cronbach Alpha (Internal Consistency)
Willingness to Change	241	4	8c 8d 8f 8i	.8280
Preparedness	273	6	1e 1f 1g 1h 3b 3f	.7415
Self-Efficacy	242	4	9d 9f 9e 9j	.6800
Responsibility Acceptance	252	5	5a 5b 5c 5f 8a	.6128
Problem Acceptance	285	4	1a 1b 1c 1d	.5828
Student Potential Orientation	287	3	2a 4a 4b	.5243

Demographic information for the participating principals is presented in Table 3. The majority of the principals who participated in the study were between the ages 41-50 and 51-60. Forty-one percent of the principals supervised grade levels 9-12 (high schools); 21% supervised grade levels 6-8 (middle schools); and 38% supervised grade levels 6-12 (middle and high schools). A majority of the principals held Master's degrees while some held specialist's degrees and only a few held doctoral degrees. Less than ten percent of the principals were female. The data gathered from the sample are representative of the population of rural Iowa secondary school principals in the state.

Table 3. Demographic information of participating rural Iowa secondary school principals

	N	Percentage
Years of Experience as a Principal		
0-2	18	6.1
3-6	37	12.7
7-10	11	3.8
11-15	26	8.9
16 or more	127	43.49
Information not given	73	25.0
	N = 292	% = 100
School Level		
Grades 6-8	55	18.8
Grades 9-12	111	38.0
Grades 6-12	102	34.9
Information not given	24	8.2
	N = 292	% = 100
Age		
26-30	5	1.7
31-35	25	8.6
36-40	44	15.6
41-50	128	43.8
51-60	74	25.3
61 +	10	3.4
Information not given	6	2.1
	N = 292	% = 100
Level of Education		
Master's Degree	213	72.9
Specialist	62	21.2
Doctorate	7	2.3
Information not given	10	3.6
	N = 292	% = 100
Gender		
Female	26	8.9
Male	251	86.0
Information not given	15	5.1
	N = 292	% = 100

Data Collection — FINE Study

The validity and usefulness of the survey is dependent on the representativeness of the sample and the proportion of the surveys returned (Borg & Gall, 1989). In early October 1991, 506 principals were sent survey instruments for the FINE study. No random sampling was done because the objective was to study all principals in rural Iowa secondary schools. Specific instructions for completion of the survey were provided on the inside of the survey booklet. A cover letter was included explaining the following: (1) purpose, (2) amount of time needed for survey completion, and (3) survey completion was voluntary. The surveys were counted, coded, and mailed personally to each of the 506 rural Iowa secondary school principals. Follow-up letters were sent to nonresponding principals urging them to complete and return their surveys. A sample of the original survey sent to the participants is included in Appendix C.

Data Analysis — Present Study

Data from the returned instruments completed by the principals in the FINE study were placed in a data file using the SPSS computational system in the Durham Center at Iowa State University. This data provided the basis for the present study. The data analysis techniques used to provide the descriptive statistics and address the research questions for the present study are presented below:

1. Means, standard deviations, and frequencies (reported as percentages) were calculated for individual items related to principals' perceptions and beliefs. Total factor means and standard deviations were also calculated for each of the factors: (1) preparedness, (2) self-efficacy, (3) problem acceptance, (4) student potential orientation, (5) responsibility acceptance, and (6) willingness to change to meet the needs of students at risk.
2. One-way analysis of variance (ANOVA) tests and t-tests were used to determine differences in principals' age, gender, years of principal experience, level of education, and

grade level of school on the six factors. The Scheffé method for post hoc comparisons was used to determine where the difference between the groups were.

3. Pearson product moment correlations were calculated to determine the relationships between and among the factors: preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at risk.
4. Stepwise multiple regression was used to determine if self-efficacy, preparedness, problem acceptance, student potential orientation, and responsibility acceptance predict rural Iowa secondary school principals' willingness to change to meet the needs of students at risk of school failure.

Conceptual Model

Figure 1 shows the conceptual model that was designed to answer research questions for the present study. The major focus of the present study was to determine rural Iowa secondary school principals' perceived self-efficacy in meeting the needs of at-risk students. Five other factors believed to be related to principals' perceptions were included in the model.

The major component of the model was self-efficacy. To provide meaningful leadership, principals need to have a high level of self-efficacy for working with at-risk students. Bandura (1977) defines self-efficacy as a person's belief that he or she can perform certain tasks to reach a desired outcome. He posits that self-efficacy will determine how much effort people expend, what decisions they make in determining the task they choose and how long they will persist in performing that task. If principals possess a high sense of self-efficacy related to working with at-risk students, they will choose challenging tasks to meet the needs of at-risk students.

Self-efficacy was the driving force of the model. In the model, the direction of the arrows indicate the relationship of principals' self-efficacy to the factors, particularly

principals' willingness to change to work with at-risk students. It was hypothesized that principals who had a strong sense of efficacy would more likely accept the problems of at-risk students, believe in students' potential to learn, accept the responsibility of at-risk students and would more likely be willing to change to meet the needs of at-risk students.

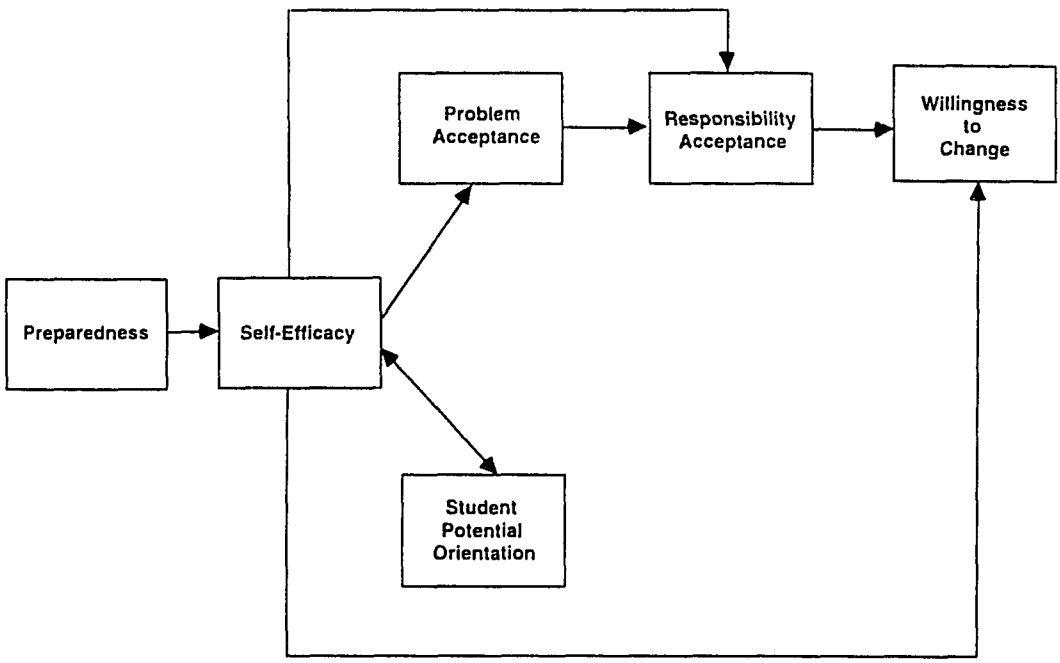

Figure 1. Conceptual model for rural Iowa secondary principals' depicting relationship between preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance and willingness to change.

CHAPTER 4. FINDINGS

Over the last decade, Iowa, like the rest of the country, has experienced a dramatic increase in the number of rural students at risk. The results of the FINE study indicated 10% of the student population in Iowa have been identified and between 10% and 25% of their students are not formally identified but are at risk of school failure (Licklider, 1992). Concern for these students is a focal point of educators in Iowa. While school districts provide various programs to support rural students at risk, the number of students who remain unprepared to live productive lives still continues to increase. More needs to be done in order to decrease this population of students and increase the students' success in school.

Principals are key players in the effort to meet the needs of at-risk students; they provide the leadership needed. While research has been centered on at-risk students, little is known about the relationship between principals and at-risk students. Very little is known about principals' sense of self-efficacy in working with at-risk students and their sense of efficacy for enhancing conditions for these students. There is a need to learn more about principals' self-efficacy for working with at-risk students and how it affects their leadership for at-risk students.

The problem for this study was related to principal leadership for at-risk students. The problem is threefold: (1) to determine participating rural Iowa secondary school principals' levels of self-efficacy and a number of additional factors (preparedness, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change) believed to be related to their ability to meet the needs of students at risk of school failure, (2) to determine the relationships between and among secondary school principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and their willingness to change, and (3) to determine the best predictors of principals' willingness to change to meet the needs of students at risk. A survey instrument was used to collect data from

rural Iowa secondary school principals (middle/junior high and high school). Twenty-six items were employed to collect data to measure six factors: principals' self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and willingness to change. The instrument used a 5-point Likert scale, with 1 indicating strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree, and NA not applicable. Two hundred and ninety-two of the 506 rural Iowa secondary school principals (58%) responded to the survey.

This chapter consists of two major sections. The first section, descriptive statistics, presents means, frequencies, and standard deviations for principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change in order to meet the needs of students at risk.

The second section, inferential statistics, presents the results of the testing of seven hypotheses. A number of statistical tests were used to test the hypotheses. One-way analysis of variance (ANOVA) tests were used to determine if there are significant differences in the average levels of each factor across categories of selected demographic variables: age, gender, years of principals' experience, level of education, and grade level of school. Additionally, ANOVA was utilized to test the null hypotheses no significant relationships existed among the six factors and the demographics variables. The Scheffé method for making post hoc comparisons was used to indicate significant differences between each of the factors and the demographic variables. Pearson correlation coefficients were calculated to determine the relationships between and among principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure. Stepwise multiple regression was utilized to determine the factors that best predict rural Iowa secondary school principals' willingness to change to meet the needs of students at risk of school failure.

Descriptive Statistics

This section presents the responses of rural Iowa secondary school principals' perceptions of at-risk students as they relate to principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change. The means, standard deviations, and frequencies (reported as percentages) are reported in tables for each of these factors. Data for the principals were derived from the FINE study using *The Inventory of Educators Readiness for Meeting the Needs of Students At Risk.* Twenty-six statements were used to examine the secondary principals' perceptions and beliefs about meeting the needs of students at risk of school failure. Four statements examined the extent to which principals reported they were efficacious (self-efficacy) in having a positive effect on the learning and achievement of at-risk students. Four statements examined the extent to which principals believe at-risk students is a problem issue (problem acceptance). Six statements examined the principals' perceptions their of knowledge, training, and experience necessary to meet the needs of students at risk of school failure (preparedness). Four statements examined principals' beliefs that all students are capable of learning (student potential orientation). Six statements examined the extent to which principals believe it is their obligation to help at-risk students meet success in school (responsibility acceptance). Four statements examined the extent to which principals are willing to change personal and professional practices to meet the needs of at-risk students (willingness to change).

The means and standard deviations for principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students are presented in Table 3. The percentage of principals who agreed with the statement (4 or 5) on a 5-point Likert scale are also presented. Rural Iowa secondary school principals who responded 4 or 5 indicate they believe they have the ability to address the needs of at-risk students. Principals' perceptions and beliefs for the items that constitute each of the six factors are shown in Tables 4–9.

Table 4 shows that most principals are willing to change their personal and professional practices to help students be successful (4.33); 91% of the principals indicated they are willing to change to meet the needs of at-risk students. Principals are also willing to accept their obligation to help at-risk students achieve success in school; this factor received the second most positive mean rating, 4.26. A majority of the principals (83%) indicate they accept the responsibility for student achievement. Seventy-seven percent of the principals believe that at-risk students are a problem issue (problem acceptance, mean = 4.23). Principals who believe they have a positive effect on student achievement (self-efficacy) is slightly less than 4 (mean = 3.94). Fifty-seven percent of the principals indicate they believe they can make a positive effect on student achievement. Fifty-seven percent of the secondary principals indicate they believe all students have the potential to learn (student potential orientation, mean = 3.87), whereas only 31% agree they have the knowledge, training and skills, necessary to help at-risk students be successful (preparedness, mean = 3.70).

Table 4. Composite mean scores, standard deviations, and percentages for self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and willingness to change (N=292)

Factors	Mean	SD	Percentages of Principals with $\overline{X} \geq 4$
Willingness to Change	4.33	.50	91.1
Responsibility Acceptance	4.26	.47	83.2
Problem Acceptance	4.23	.57	76.9
Self-Efficacy	3.94	.56	57.0
Student Potential Orientation	3.87	.74	56.8
Preparedness	3.70	.51	30.8

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

Table 5 presents data for items that measure self-efficacy, the extent to which principals believe they can have a positive effect on the learning and achievement of at-risk students. Most principals (96%) report they are certain they can make a difference in the lives of their students, while 84% report they are effective in persuading students they can become successful in school. Seventy-one percent of the principals believe their students will make academic progress in order to become successful at the next level of education or on the job.

While 53% of the principals are confident of their ability to reach the most difficult students, 21% apparently do not believe they have the ability to reach the most difficult students. Twenty-six percent of the principals are uncertain about their ability to reach the most difficult students.

Table 6 presents data for items that measure problem acceptance, the extent to which principals believe that students at risk of school failure is a problem issue. A majority of the principals (greater than 90%) report that at-risk students are a major problem issue that has

Table 5. Item means, standard deviations, and percentages for self-efficacy (N = 286)

Factor Self-Efficacy	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
Certain I can make a difference	281	4.52	.62	.4	.4	3.6	38.1	57.7
Effective in persuading students they can be successful in school	282	3.97	.58	0	1.1	15.2	69.1	14.5
Students will succeed at next level or on job	247	3.80	.83	.4	7.7	20.6	54.3	17.0
Can reach most difficult students	276	3.45	1.05	2.9	17.8	26.1	37.7	15.6
Self-Efficacy Set Total	286	3.94	.56					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

Table 6. Item means, standard deviations, and percentages for problem acceptance (N = 292)

Factor Problem Acceptance	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
At-risk students as a major national problem	289	4.34	.79	.7	3.1	6.2	41.2	48.8
Increase in at-risk students	289	4.32	.92	2.1	5.5	2.4	38.4	51.6
The long-term cost	289	4.54	.68	0	1.0	7.3	28.7	63.0
Problem in our district	288	3.73	1.01	2.8	12.2	14.6	50.3	20.1
Problem Acceptance Set Total	290	4.23	.57					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

increased over the past five or ten years. They are also aware of the long-term cost to educate these students (92%). When principals are asked if at-risk students are a problem in their district, a relatively large percentage (70%) indicate that these students are a problem, while 14% of the principals indicate they are uncertain that at-risk students are a problem issue in their district.

Table 7 presents data for items that measure preparedness, or principals' belief that the knowledge, training, and experience they possess is necessary to help at-risk students succeed. Most of the principals (90%) indicate they know and can recognize behaviors that cause students to be at risk. Eighty-nine percent of the principals believe they can recognize life circumstances that place students at risk, while 84% report they are aware of the circumstances. Slightly less than 30% of the principals (29.8%) believe they have the ability to help students overcome life/home situations that put them at risk. Nearly the same percentage of principals did not know (34%) or were uncertain (36%) about their ability to help students overcome the

Table 7. Item means, standard deviations, and percentages for preparedness (N = 292)

Factor Preparedness	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
Know behaviors at-risk students choose	286	4.22	.63	0	1.4	7.0	59.8	31.8
Recognize behaviors of at-risk students	287	4.25	.60	0	.7	6.6	59.6	33.1
Recognize life circumstances that cause students to be at risk	288	4.10	.66	.3	2.4	8.0	64.9	24.3
Know life circumstances that cause students to be at risk	287	4.07	.76	1.0	2.4	12.2	57.5	26.8
Ability to overcome life/home situations	285	2.92	.91	4.9	29.1	36.1	28.4	1.4
Adequate college preparation	2.83	2.65	1.09	10.2	44.9	20.5	18.0	6.4
Preparedness Set Total	292	3.70	.51					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

home situations that put them at risk. Nearly one-fourth (24%) of the principals indicate the training and preparation they received equipped them to deal with students who are poorly motivated and have a history of behavior problems.

Table 8 presents data for items that measure student potential orientation, the extent to which principals believe all students are capable of learning. Many of the principals (70%) believe that educating all children is the primary focus of the district. When principals were asked if they felt all students are reachable, 64% responded positively. About 50% of the

Table 8. Item means, standard deviations, and percentages for student potential orientation (N = 292)

Factor Student Potential Orientation	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
Educating all children is primary focus of district	289	4.66	.66	2.8	12.2	14.6	50.3	20.1
All students are reachable	290	3.61	1.20	6.2	15.5	14.1	38.6	25.5
All students are capable of learning	290	3.33	1.17	4.1	28.3	15.2	35.5	16.9
Student Potential Orientation	292	3.87	.74					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

principals indicate they believe all students have the potential to learn, whereas one-third apparently do not believe all students can learn.

Table 9 presents data for individual items that measure responsibility acceptance, the extent to which principals believe it is their obligation to help at-risk students meet success in school. Responsibility acceptance has the second-highest mean of the factors in this study (4.26). A majority of the principals (over 96%) believe it is their responsibility to keep students from dropping out of school and that it is their responsibility to provide help to students beyond their official work hours. Ninety-two percent of the principals report they are responsible for helping all students achieve in school. Eighty-seven percent of the principals indicate they are willing to do more to meet the needs of at-risk students, i.e., change their professional practices as needs of students change (82%).

Table 10 presents data for items that measure willingness to change, the extent to which principals are willing to change personal and professional practices to meet the needs of at-risk

Table 9. Item means, standard deviations and percentages for responsibility acceptance (N = 292)

Factor Responsibility Acceptance	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
Keep students from dropping out of school	287	4.53	.65	.7	.7	2.1	37.6	58.9
Help students beyond my official duties	280	4.35	.59	.4	.4	2.5	57.5	39.3
Help all my students achieve	267	4.32	.73	.7	1.9	5.2	48.7	43.4
Do more to meet the needs of at-risk students	286	4.16	.81	1.0	3.5	8.7	51.4	35.3
Change my practices as children's' needs change	287	3.96	.86	1.4	7.3	9.1	58.9	23.3
Responsibility Acceptance Set Total	292	4.26	.47					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

students. Willingness to change is the most positive of the six factors measured in this study (4.33). Most of the principals indicate a willingness to meet the needs of at-risk students. Specifically, the principals report they are willing to learn more about what puts students at risk (96%); learn and apply teaching strategies to help the at-risk students (97%); learn and examine course content (95%); and change parent involvement to meet the educational needs of at-risk students (93%).

Table 10. Item means, standard deviations, and percentages for willingness to change (N = 291)

Factor Willingness to Change	N	Mean	SD	% Strongly Disagree	% Disagree	% Neutral	% Agree	% Strongly Agree
Learn more about what puts students at risk	287	4.36	.63	.3	1.0	3.1	52.6	42.9
Learn/apply teaching strategies and approaches to help students at risk	280	4.39	.56	0	.4	2.9	53.9	42.9
Examine and change course content	250	4.30	.60	0	1.2	4.0	59.2	35.6
Learn/change parent and community involvement	286	4.27	.65	0	2.1	4.5	57.3	36.0
Willingness to Change Set Total	291	4.33	.50					

Rating Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, NA = Not Applicable.

Inferential Statistics

Seven hypotheses were formulated to examine relationships between principals' perceptions and beliefs of their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of students at risk of school failure. Hypotheses were tested for significance at the .05 level. Stated in the null form, the hypotheses are as follows.

1. There are no significant differences in participating rural Iowa secondary school principals' age who are 26-30, 31-35, 36-40, 41-50, 51-60, and 61 or older and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation,

responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure.

2. There are no significant differences between participating rural Iowa secondary male and female school principals' levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willing to change to meet the needs of students at risk of school failure.
3. There are no significant differences in participating rural Iowa secondary school principals who have 0-8, 3-6, 7-10, 11-15, and 16 or more total years of experience and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure.
4. There are no significant differences in participating rural Iowa secondary school principals' grade levels of school 6-8, 9-12, and 6-12 and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure.
5. There are no significant differences between participating rural Iowa secondary school principals with Master's, Specialist, or Doctorate degrees and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure.
6. There are no significant relationships between and among participating rural Iowa secondary school principals' levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of students at risk of school failure.
7. Preparedness, self-efficacy, problem acceptance, student potential orientation, and responsibility acceptance, do not predict participating rural Iowa secondary school principals' willingness to change to meet the needs of students at risk of school failure.

Hypotheses 1, 2, 3, 4, and 5 are designed to determine whether there are significant relationships between each of the six factors believed to be related to principals' ability to meet the needs of at-risk students and five demographics variables. The five demographic variables are age, gender, total years of principal experience, level of education, and grade level of school. One-way analysis of variance (ANOVA) tests were run for hypotheses 1, 2, 3, 4, and 5 to examine whether there are any relationships between the six factors and each of the five demographic variables. If significant differences were found, the Scheffe' method for post hoc comparisons was used to determine which of the factor's groups were different.

HO 1: There are no significant differences in participating rural Iowa secondary school principals' age who are 26-30, 31-35, 36-40, 41-50, 51-60, and 61 or older and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Hypothesis one was formulated to determine the extent to which the principals' age classifications are related to their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Table 11 shows there are no significant differences in the principals' perceptions of their preparedness, self-efficacy, problem acceptance, responsibility acceptance, and willingness to change to meet the needs of at-risk students across the six age groups. There are, however, significant differences in student potential orientation by the age groups ($F = 3.63$, $p<.05$). Principals between the ages of 26-30 (mean = 4.67) have stronger beliefs in students' potential to learn than do principals in the other four age groups. Principals between the ages of 41-50 (mean = 3.99) have significantly stronger student potential

Table 11. Principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change, by age classifications of principals (N=292)

Factors	N	Mean	SD	F-value	Probability	Significant Differences between Groups (Scheffe')
Preparedness						
(26–30)	5	4.13	.67	1.14	.33	
(31–35)	25	3.66	.49			
(36–40)	44	3.60	.54			
(41–50)	128	3.70	.49			
(51–60)	74	3.72	.55			
(61 +)	10	3.72	.29			
Self-Efficacy						
(26–30)	5	4.20	.86	1.20	.31	
(31–35)	25	4.08	.43			
(36–40)	43	3.83	.61			
(41–50)	125	3.98	.54			
(51–60)	72	3.90	.55			
(61 +)	10	3.78	.53			
Problem Acceptance						
(26–30)	5	4.30	.54	1.47	.20	
(31–35)	25	4.40	.43			
(36–40)	44	4.13	.65			
(41–50)	127	4.28	.55			
(51–60)	73	4.13	.61			
(61 +)	10	4.33	.39			
Student Potential Orientation						
(26–30)	5	4.67	.33	3.63	.00**	1>5
(31–35)	25	3.93	.69			1>3
(36–40)	44	3.70	.86			1>2
(41–50)	128	3.99	.70			1>4
(51–60)	74	3.66	.72			4>5
(61 +)	10	3.97	.64			4>3
Responsibility Acceptance						
(26–30)	5	4.51	.32	1.24	.29	
(31–35)	25	4.36	.45			
(36–40)	44	4.23	.39			
(41–50)	128	4.29	.51			
(51–60)	73	4.18	.45			
(61 +)	10	4.40	.41			
Willingness to Change						
(26–30)	5	4.45	.67	1.15	.33	
(31–35)	25	4.53	.44			
(36–40)	44	4.31	.44			
(41–50)	128	4.34	.51			
(51–60)	73	4.27	.52			
(61 +)	10	4.23	.42			

** $p < .001$. Group 1 = 26-30, Group 2 = 31-35, Group 3 = 36-40, Group 4 = 41-50, Group 5 = 51-60, Group 6 = 61+.

orientation than do principals between the ages of 36-40 and 51-60. Because there were significant differences between the groups in student potential orientation, the null hypothesis is rejected.

HO 2: There are no significant differences between participating rural Iowa secondary male and female school principals' perceptions of their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Hypothesis two was formulated to determine the extent to which gender is related to principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Table 12 shows there are no significant differences in male and female principals' self-efficacy, problem acceptance, student potential orientation, and responsibility acceptance. There are significant differences in male and female principals' preparedness ($t = 2.62$, $p < .05$) and their willingness to change ($t = 4.37$, $p < .05$) to meet the needs of at-risk students. Female principals perceive themselves to be more prepared (mean = 3.94) than male principals (mean = 3.67) and are more willing to change (mean = 4.64) to meet the needs of at-risk students than male principals (mean = 4.30). Therefore, the null hypothesis is rejected.

HO 3: There are no significant differences in participating rural Iowa secondary school principals who have 0-8, 3-6, 7-10, 11-15 and 16 or more years of experience and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of students at-risk of school failure.

Table 12. Principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change, by male and female principals (N=292)

Factors	Females (Group 1)			Males (Group 2)			T-value	Probability	Significant Differences between Groups
	N	Mean	SD	N	Mean	SD			
Preparedness	26	3.94	.51	251	3.67	.51	2.62	.009**	F > M
Self-Efficacy	26	3.94	.57	245	3.94	.57	0.96	.340	
Problem Acceptance	25	4.34	.49	250	4.21	.58	1.05	.300	
Student Potential Orientation	26	4.03	.63	251	3.84	.75	1.43	.220	
Responsibility Acceptance	26	4.38	.38	251	4.25	.47	1.52	.160	
Willingness to Change[a]	26	4.64	.36	250	4.30	.51	4.37	.000**	F > M

**p < .001
a = Separate t-test used due to unequal variances in the sample. All others are pooled t-test.

Hypothesis three was formulated to determine the extent to which the principals' years of experience is related to their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Table 13 indicates there are no significant differences among the six factors when principals' years of experience are considered. Principals' years of experience are not related to their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, or their willingness to change to meet the needs of at-risk students.

Table 13. Principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change, by principals' years of experience (N=292)

Factors	N	Mean	SD	F-value	Probability	Significant Differences between Groups (Scheffe')
Preparedness						
(0–2)	18	3.70	.58	.94	.44	
(3–6)	38	3.60	.52			
(7–10)	11	3.58	.54			
(11–15)	26	3.81	.40			
(16+)	127	3.74	.53			
Self-Efficacy						
(0–2)	18	3.94	.64	.66	.62	
(3–6)	37	4.02	.57			
(7–10)	11	3.94	.38			
(11–15)	26	3.96	.57			
(16+)	125	3.86	.59			
Problem Acceptance						
(0–2)	18	4.24	.55	.40	.81	
(3-6)	37	4.16	.68			
(7–10)	11	4.23	.54			
(11–15)	26	4.35	.50			
(16+)	126	4.21	.58			
Student Potential Orientation						
(0–2)	18	4.15	.60	1.01	.41	
(3–6)	38	3.78	.91			
(7–10)	11	3.76	.70			
(11–15)	26	3.96	.73			
(16+)	127	3.83	.71			
Responsibility Acceptance						
(0–2)	18	4.25	.42	.78	.54	
(3–6)	38	4.15	.56			
(7–10)	11	4.30	.53			
(11–15)	26	4.36	.42			
(16+)	127	4.26	.46			
Willingness to Change						
(0–2)	18	4.21	.55	.64	.63	
(3–6)	38	4.32	.61			
(7–10)	11	4.52	.45			
(11–15)	26	4.30	.45			
(16+)	127	4.30	.59			

None of the F-values had a probability of .05 or less. Therefore, the researcher failed to reject the null hypothesis.

HO 4: There are no significant differences in participating rural Iowa secondary school principals' grade level of schools 6-8, 9-12, and 6-12 and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Hypothesis four was formulated to determine the extent to which the grade level of the school is related to principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students.

Table 14 shows principals' grade level was not related to their principals' preparedness, self-efficacy, and problem acceptance, but principals' student potential orientation ($F = 3.30$, $p < .05$), responsibility acceptance ($F = 4.95$, $p < .05$), and willingness to change ($F = 7.00$, $p < .05$) to meet the needs of at-risk students do differ by grade level. Principals' student potential orientation (mean = 4.06), responsibility acceptance (mean = 4.37) and willingness to change (mean = 4.49) are lowest for those who administer grade levels 9-12 while it is higher for those who administer grade levels 6-8. Principals who administer grade levels 6-12 have a stronger acceptance of their responsibility acceptance (mean = 4.31) and are significantly more willing to change to meet the needs of at-risk students (mean = 4.35) than principals who administer grade levels 9-12. Therefore, the null hypothesis is rejected.

HO: 5 There are no significant differences in participating rural Iowa secondary school principals with Master's, Specialist or Doctorate degrees and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation,

Table 14. Principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change, by principals' grade level of school (N=292)

Factors	N	Mean	SD	F-value	Probability	Significant Differences between Groups (Scheffé)
Preparedness (Building Level)						
(6-8)	55	3.71	.49			
(6-12)	102	3.71	.51	.11	.89	
(9–12)	111	3.68	.53			
Self-Efficacy						
(6–8)	54	4.06	.57	1.69	.19	
(6–12)	101	3.89	.56			
(9-12)	108	3.91	.53			
Problem Acceptance						
(6–8)	55	4.31	.53	2.28	.10	
(6–12)	102	4.25	.54			
(9–12)	109	4.13	.63			
Student Potential Orientation						
(6–8)	55	4.06	.69	3.30	.04*	1>3
(6–12)	102	3.85	.65			
(9–12)	111	3.75	.83			
Responsibility Acceptance						
(6–8)	55	4.37	.37	4.95	.01**	1>3
(6–12)	102	4.31	.42			2>3
(9–12)	111	4.16	.52			
Willingness to Change						
(6–8)	55	4.49	.45	7.00	.00**	1>3
(6–12)	101	4.35	.46			2>3
(9–12)	111	4.20	.54			

*p < .05, ** p < .01. Group 1 = 6-8, Group 2 = 6-12, Group 3 = 9-12

responsibility acceptance, and willingness to change to meet the needs of students at risk of school failure.

Hypothesis five was formulated to determine the extent to which principals' level of education is related to their preparedness, self-efficacy, problem acceptance, student potential

orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students. Table 15 shows there are no significant differences in participating rural Iowa secondary school principals who have Master's, Specialist, or Doctorate degrees and their levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change to meet the needs of at-risk students. None of the F-values had a probability of .05 or less. Therefore, the researcher failed to reject the null hypothesis.

Table 15. Principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and willingness to change, by level of education of principals (N= 296)

Factors	N	Mean	SD	F-value	Probability	Significant Differences between Groups (Scheffé)
Preparedness						
Master's	213	3.68	.49	.70	.50	
Specialist	62	3.71	.56			
Doctorate	7	3.90	.61			
Self-Efficacy						
Master's	209	3.94	.55	.07	.93	
Specialist	60	3.94	.57			
Doctorate	7	4.00	.66			
Problem Acceptance						
Master's	212	4.22	.59	1.81	.16	
Specialist	62	4.21	.51			
Doctorate	6	4.67	.34			
Student Potential Orientation						
Master's	213	3.85	.76	1.02	.36	
Specialist	62	3.87	.70			
Doctorate	7	4.26	.84			
Responsibility Acceptance						
Master's	213	4.30	.44	1.39	.25	
Specialist	62	4.22	.52			
Doctorate	7	4.06	.57			
Willingness to Change						
Master's	213	4.35	.50	.34	.71	
Specialist	61	4.29	.51			
Doctorate	7	4.26	.56			

HO 6: There are no significant relationships between and among participating rural Iowa secondary school principals' levels of: self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.

Hypothesis six was formulated to determine if there are significant relationships between and among principals' perceptions of six factors believe to be related to their ability to meet the needs of at-risk students. Pearson correlation coefficients were calculated to determine the significant relationships. A correlation matrix presents the findings for Hypothesis 6.

Table 16 shows there are no significant relationships between principals' preparedness and willingness to change (r = .10), preparedness and self-efficacy (r = .09) nor between problem acceptance and self-efficacy (r = .07). However, there are twelve significant relationships reported between and among the other factors believed to be related to the principals' ability to meet the needs of at-risk students. The significant relationships are reported in order of strength of the correlation. These are:

1. Responsibility acceptance is significantly related to Willingness to change (r = .53).
2. Self-efficacy is significantly related to Willingness to change (r = .46).
3. Self-efficacy is significantly related to Student potential orientation (r = .44).
4. Responsibility acceptance is significantly related to Self-efficacy (r = .41).
5. Responsibility acceptance is significantly related to Student potential orientation (r = .36).
6. Problem acceptance is significantly related to Student potential orientation (r = .34).
7. Student potential orientation is significantly related to Willingness to change (r = .31).
8. Problem acceptance is significantly related to Willingness to change (r = .30).
9. Responsibility acceptance is significantly related to Problem acceptance (r = .29).
10. Preparedness is significantly related to Student potential orientation (r = .24).

Table 16. Pearson product-moment correlation coefficients for preparedness, responsibility acceptance, willingness to change, self-efficacy, problem acceptance, and student potential orientation (N=292)

Concepts	PREP	RA	WTC	SE	PA	SPO
1. Preparedness (PREP)	1.0000	.1725**	.0983	.0852	.2062**	.2437**
2. Responsibility Acceptance (RA)		1.0000	.5261**	.4087**	.2937**	.3642**
3. Willingness to Change (WTC)			1.0000	.4592**	.2950**	.3078**
4. Self-Efficacy (SE)				1.0000	.0692	.4436**
5. Problem Acceptance (PA)					1.0000	.3376**
6. Student Potential Orientation (SPO)						1.0000

**Significant at the .01 level.

11. Preparedness is significantly related to Problem acceptance (r = .21).

12. Preparedness is significantly related to Responsibility acceptance (r = .21).

HO 7: Preparedness, self-efficacy, problem acceptance, student potential orientation, and responsibility acceptance do not predict participating rural Iowa secondary school principals' willingness to change to meet the needs of students at risk of school failure.

Hypothesis seven was formulated to determine the extent to which the factors believed to be related to the principals' ability to meet the needs of at-risk students predict their willingness to change to meet the needs of at-risk students.

Table 17 shows the stepwise multiple regression equation used to test the hypothesis. Preparedness and student potential orientation are not significant predictors of principals' willingness to change students to meet the needs of at-risk students. Based on the assessment

of regression partial slopes, three factors entered significantly into the regression equation: responsibility acceptance, self-efficacy and problem acceptance.

Table 17 shows that 36% of the variance in willingness to change is accounted for by responsibility acceptance, self-efficacy, and problem acceptance. Responsibility acceptance, entered first, accounts for 25% of the variance in willingness to change. Self-efficacy, the second factor entered into the equation, accounts for 8%, and problem acceptance accounts for 3% of the variance in principals' willingness to change to meet the needs of at-risk students. Therefore, the null hypothesis is rejected for the factors responsibility acceptance, self-efficacy, and problem acceptance.

Table 17. Stepwise multiple regression coefficients and R-square table for all the factors, with willingness to change as the dependent variable

Variables	R-square	B	Probability (Significant T)
Responsibility Acceptance	.2492	.3056	.0000**
Self-Efficacy	.0765	.3034	.0000**
Problem Acceptance	.0343	.2556	.0001**
Total R-square	.3600		

**p < .01

CHAPTER 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter is divided into six sections: A summary of the Study, Relevant Findings, Conclusions, Discussion, Limitations of the Study, Recommendations for Practice, and Recommendations for Future Research.

Summary of the Study

The major purpose of the study was to examine rural Iowa secondary school principals' perceived self-efficacy for meeting the needs of at-risk students. Specifically, the study examined: (1) the principals' levels of preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students; (2) the relationships between and among the five factors and principals' willingness to change to meet the needs of at-risk students; and (3) the best predictors of principals' willingness to change to meet the needs of at-risk students.

Two hundred ninety-two rural Iowa secondary school principals participated in the study. The majority of the principals who participated in the study were males and were between the ages of 41-50 and 51-60. Less than ten percent of the principals were females. Forty-one percent of the principals administered grade levels 9-12, 21% administered grade levels 6-8, and 38% administered both middle and high school grade levels 6-12. A majority of the principals held Master's degrees, while some held specialist degrees and only a few held doctoral degrees. The data gathered from the sample were representative of the population of rural Iowa secondary school principals in the State of Iowa.

The instrument used for the study was, *Selection of Items for Inventory of Factors Relating to Principals' Perceptions for Meeting the Needs of At-Risk Students*. It consisted of twenty-six items that measured six factors. Each factor was measured by three to six items. The response choices for the items were based on a 5-point Likert scale indicating: (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly agree. If the

item(s) did not apply to the principals, they indicate by circling NA (not applicable) on the survey for that particular item(s).

Means, standard deviations and frequencies (reported as percentages) were calculated on each factor and on the individual items related to the principals' perceptions and beliefs. The t-test and one-way analysis of variance procedures were used to determine if there were significant differences in the principals' age, gender, total years of experience, grade level of school, and level of education, and the six factors. Pearson correlation coefficients were calculated to determine the relationships between and among the five factors and principals' willingness to change to meet the needs of at-risk students. Stepwise multiple regression was used to determine which of the factors best predicted the secondary school principals' willingness to change to meet the needs of at-risk students. Seven null hypotheses were formulated to examine the research questions posed in this study.

Summary of Findings

The study yielded a number of important findings that have implications for rural secondary school principals. A summary of the findings is provided below:

1. There are no significant differences between the age classifications of the principals and their preparedness, self-efficacy, problem acceptance, responsibility acceptance and willingness to change to meet the needs of at-risk students. There are significant differences between the principals' age classifications and student potential orientation. Principals between the ages of 26-30 have stronger beliefs in students' potential to learn than did principals in the other age classifications: 31-35, 36-40, 41-50, and 51-60. Principals between the ages of 41-50 have stronger beliefs in students' potential to learn than do principals between the ages of 36-40 and 51-60.
2. There is no significant difference in the level of male and female principals' perceived self-efficacy and their problem acceptance. There are significant differences between male and

female principals' preparedness and their willingness to change to meet the needs of at-risk students. Female principals believe they are more prepared and are willing to change to meet the needs of at-risk students compared to male principals.

3. Principals' level of experience is not significantly related to their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, or their willingness to change to meet the needs of at-risk students.
4. There is no significant relationship between the grade levels of the school administered by the principals and their preparedness, self-efficacy and problem acceptance. There are relationships between the grade levels of schools and principals' willingness to change, student potential orientation and responsibility acceptance. Principals who administer grade levels 6-8 have stronger beliefs in: students' potential to learn; have a stronger obligation to help at-risk students succeed; and are more willing to change to meet the needs of at-risk students compared to principals who administer grade levels 9-12 who reported having the lowest beliefs on these factors. Principals who administer grade levels 6-12 have stronger beliefs in their responsibility acceptance and willingness to change to meet the needs of at-risk students than do principals in grade levels 9-12.
5. The level of education of principals is not related to their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, or their willingness to change to meet the needs of at-risk children.
6. There are no significant relationships between principals': preparedness and their self-efficacy; problem acceptance and their self-efficacy; and preparedness and their willingness to change to meet the needs of at-risk students. However, significant relationships were found between and among the following factors examined.
   (a) Principals' responsibility acceptance, student potential orientation, problem acceptance and their self-efficacy are significantly related to principals' willingness to change to meet the needs of at-risk students.

(b) Principals' problem acceptance is significantly related to their student potential orientation and their responsibility acceptance.

(c) Principals' preparedness is significantly related to their student potential orientation, problem acceptance, and their responsibility acceptance.

(d) Principals' responsibility acceptance is significantly related to their student potential orientation.

(e) Principals' student potential orientation is significantly related to principals' self-efficacy.

(f) Principals' responsibility acceptance is significantly related to principals' self-efficacy.

7. A multiple regression equation was used to determine the best predictors of principals' willingness to change to meet the needs of at-risk students. Principals' preparedness and problem acceptance were not significant predictors of principals' willingness to change to meet the needs of at-risk students. Thirty-six percent of the variance in predicting principals' willingness to change to meet the needs of students is explained by the factors: responsibility acceptance, self-efficacy, and problem acceptance. Responsibility acceptance entered first in the equation, accounting for 25% of the variance.

Conclusions

The findings for this study lead to important conclusions about rural Iowa secondary school principals and factors relating to their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and their willingness to change to meet the needs of at-risk students.

1. Younger principals (under 30 years of age) tend to have a stronger belief that all students are capable of learning compared to older principals. Principals' age did not

appear to be related to their beliefs about their preparedness, self-efficacy, problem acceptance, responsibility acceptance, or their willingness to change to meet the needs of at-risk students.

2. Gender is not related to principals' beliefs about their self-efficacy, problem acceptance, and their responsibility acceptance, but it does make a difference in principals' preparedness and their willingness to change to meet the needs of at-risk students. Female principals believed they are more prepared and are more willing to change to meet the needs of at-risk students compared to male principals.
3. Years of experience did not seem to be related to principals' preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, or their willingness to change to meet the needs of at-risk students.
4. Middle school principals perceived themselves more sensitive to meeting the needs of at-risk students than do high school principals. Conversely, high school principals who administer grade levels 9-12 do not have strong beliefs about students' potential to learn (student potential orientation), responsibility acceptance, nor are they willing to change to help these students meet success.
5. Advanced degrees do not tend to be related to principals' beliefs about their preparedness, self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, or their willingness to change to meet the needs of at-risk students.
6. Principals who believe all students are capable of learning are more likely to be willing to change to meet the needs of at-risk students. Principals who believe at-risk students are a problem are more likely to be willing to change to meet the needs of at-risk students. Principals who believe they have the ability to help at-risk students succeed are more likely to be willing to change to meet the needs of at-risk students. Principals who are more willing to accept responsibility for at-risk students are more likely to be willing to change to meet the needs of at-risk students. In addition, principals who

believe they have the ability to help at-risk students succeed are more likely to accept responsibility for the success of at-risk students.

7. Principals who accept that at-risk students are a problem are more likely to believe all students are capable of learning. Principals who accept responsibility for at-risk students are more likely to believe all students are capable of learning. Principals who believe they have the ability to help at-risk students succeed are more likely to believe all students are capable of learning.
8. Principals' responsibility acceptance, self-efficacy, and problem acceptance are the best predictors of principals' willingness to change to meet the needs of at-risk students. Responsibility acceptance is the most significant predictor of principals' willingness to change to meet the needs of at-risk students.

Discussion

The major focus of the study was to determine rural Iowa secondary school principals' perceived self-efficacy for meeting the needs of at-risk students. Five other factors believed to be related to principals' perceptions for meeting the needs of at-risk students were also examined. Selected demographics, i.e., age, gender, years of principal experience, level of education, and grade level of school were examined. The major findings of this study guide the discussion.

The study resulted in some rather surprising yet significant findings related to principals' preparedness, self-efficacy, and student potential orientation. Nearly 70% of the principals do not believe they are prepared to work with at-risk students. There are several possible explanations for this. Iowa has been among the leading states in student achievement. Therefore, the perception of Iowa educators may be that there is no real problem with at-risk students. Another possible explanation is that many Iowans do not believe that the problems of rural at-risk students are serious in Iowa. This would be

case before; Presseisen (1990) maintains students typically considered at risk are those in urban centers.

Nearly 50% of the principals have doubts about their ability to help at-risk students succeed. There are several possible explanations for this. Perhaps the principals lack of preparation reduced the belief about their ability to help at-risk students succeed. Whatever the case the implications are not positive. Bandura (1986) posits perceived self-efficacy is concerned with people's beliefs in their capabilities to organize and execute courses of action required to reach desired outcomes. If a principal has a strong sense of self-efficacy, he or she will choose challenges that will produce rewarding outcomes for students. Conversely, if a principal has a low sense of self-efficacy he or she will avoid challenging situations to produce desirable outcomes for students. Sweeney (1982), in an overview on school effects clearly states that principals do make a difference, and that their leadership behaviors are positively associated with school outcomes. But if principals do not believe they have the ability to help at-risk students succeed, one would posit that little will get done to help the at-risk students who are unsuccessful.

It is disappointing to find that principals whose main role in the school is to create an environment where all students can be successful do not believe all students are capable of learning. Forty-two percent of the principals do not believe all students have the potential to learn. Again, the principals' lack of training and unsuccessful experiences with students, especially at-risk students, may have contributed to their lack of belief about students' capabilities to learn. We must find out more about why principals do not believe they are sufficiently prepared, and why they don't believe all students are capable of learning.

It is interesting to find significant relationships between the principals' age and their beliefs that all students are capable of learning. Younger principals have stronger beliefs (than older principals) that all students are capable of learning. It should be noted that only

only five principals were between the ages of 26-30. It should also be noted that principals between the ages of 41-50 had stronger beliefs about students' potential to learn than other age groups. Moreover, they were the largest group in the sample and probably comprised of the greatest segment of practitioners. There are several possibilities why the younger principals have stronger beliefs about students' potential to learn. Perhaps younger principals learned more about at-risk students during their college preparation, which in turn, has enhanced their beliefs about students' capabilities. Another reason may be that the principals are new and so is the job, and they are very motivated in doing what's best for the students. It is very possible that younger principals are out to prove they can solve the problems of the world. For one would suspect that younger principals are more hopeful. It also seems that middle-age principals may have stronger beliefs because they have more experience and are at a point in their career where they are still striving.

Several significant differences were found between male and female principals' perceptions of their preparedness to help at-risk students succeed and male and female principals' perceptions of their willingness to change to meet the needs of at-risk students. Results of the study indicate female principals report they are more prepared and more willing to change to address the needs of at-risk students compared to males. There are possible explanations to explain these gender differences. Historically, women have taught school longer than male principals before assuming the role of principals. It is quite possible that the female principals in this study have spent more time as teachers in the classroom and thus are more experienced and familiar with the problems of at-risk students than their male counterparts. Why females are more willing to change remains an open question.

One might have expected that years of experience would influence principals perceptions of their ability to meet the needs of at-risk students. It did not. This finding, however, dispels the assumption that more experienced principals have a stronger sense of

efficacy where at-risk students are concerned. More experienced principals did not feel more efficacious and willing to change to help at-risk students succeed. Nor do more experienced principals have stronger beliefs that all students are capable of learning and are the most prepared to help at-risk students succeed. Apparently efficacy requires more than experience.

Principals' grade level of school administered made a difference. Middle school principals exhibit the most favorable beliefs about students' potential to learn, their responsibility acceptance, and their willingness to change to meet the needs of at-risk students. There is a possible explanation for this. Many middle school principals have had special training helping them to focus more on the students. Perhaps the training the principals have had on organizing the staff, students, programs, time, and the building into a student-centered learning environment contribute to their efficacy. This finding is consistent with Forsythe's (1994) study of two transforming middle level schools.

High school principals (9-12) had the weakest beliefs about students' potential to learn, their responsibility acceptance of at-risk students, and their willingness to change to meet the needs of at-risk students. Perhaps high school principals think less about at-risk students and focus more on coursework. Maybe high school principals are less student-centered. These and other questions are worthy of further study.

While most principals had Master's degrees and other degrees, the results for this study revealed that there were no significant differences in principals' beliefs about their preparedness, self-efficacy, problem acceptance, students' potential to learn, responsibility acceptance, and their willingness to change to meet the needs of at-risk students. One plausible explanation may account for this finding. Apparently, educators in advanced degree programs are not being taught anything in their courses that would prepare them to help at-risk students succeed. Nor is there anything being taught in the advanced courses that would change the educators belief system about at-risk students. It is quite evident that specific courses in

advanced degree programs should examine principals' perceptions for meeting the needs of at-risk students.

The results from the study yield several factors that are significantly correlated with principals' willingness to change to meet the needs of at-risk students. The relationships ranged from a moderate positive to low positive correlations (r = .53 to .30). In order of magnitude of the correlations, the factors are responsibility acceptance, self-efficacy, student potential orientation, and problem acceptance. Previous results in the study indicate that rural Iowa secondary principals indicated a strong willingness to make necessary changes in their professional and personal practices to better meet the needs of at-risk students. Because of the social ills facing schools, principals are seeing a difficult group of children who are requiring varied approaches for being successful. It is quite possible that principals who were daily managers of school affairs are now seeing their roles as the central change agents for creating conditions in schools that foster learning where all students can experience success.

Responsibility acceptance is most strongly correlated with principals' willingness to change to meet the needs of at-risk students (r = .53). Early results in the study indicate that a majority of the principals do accept responsibility for meeting the needs of at-risk students. Perhaps the principals who indicate they accept responsibility for at-risk students do not see being obligated to help these students succeed a big risk. They accept the fact that the students are a problem. Otherwise, principals probably would be unlikely to say they are obligated to help at-risk students succeed in school. If educators want principals to be more willing to change to help at-risk students succeed in school, they must assist principals to accept responsibility for students' success.

It is not surprising that self-efficacy correlates with principals' willingness to change to help at-risk students succeed (r = .46). Apparently principals who have confidence in themselves and in their ability to help at-risk students succeed are willing to change to meet these students' needs. This is consistent with Bandura's (1977) research. Bandura maintains

that individuals' self-efficacy influences the tasks they choose, the effort they invest in the tasks, and how long they persevere when problems arise. It is also consistent with Kouzes and Posner (1993) who contend that beliefs about one's own capabilities will influence his or her motivation. If we want principals who are more willing to change, we need to work on improving their self-efficacy if we are to influence the choices they make and their persistence in working with at-risk students.

It is also not surprising that principals who believe all students have the potential to learn are more likely to be willing to change to help at-risk students meet success in school ($r = .31$). Principals who believe in students do what is needed to help students achieve. However, if principals believe students cannot achieve, they will do little to help the students. This is also consistent with Bandura (1977) who distinguishes between individuals' outcome expectations and efficacy expectations. Bandura maintains that individuals have certain beliefs about the actions they take to produce outcomes. When they have any doubts about the outcome of their effort, they are less likely to choose a task or persist in the effort in achieving the task. If all children are to learn we must work to enhance the principals' beliefs about students' capabilities to achieve. We must provide principals with information and experiences that help them understand all children can learn.

It is also not surprising that principals' acceptance of the problems of at-risk students is related to their willingness to change to help these students succeed ($r = .30$). This indicates that once principals accept the problems of at-risk students they are more likely to choose tasks or persist in their efforts to help at-risk students succeed. Conversely, principals who do not accept the problems will reject and are more likely to be unwilling to change to help students succeed in school. If we want principals to be more accepting of the problems of at-risk children there are several things educators can do. Principals should be provided with information that will help them to understand and learn more about the problems of at-risk

students. They also need opportunities to discuss and ask questions about at-risk students in an environment where they receive encouragement and support.

Finally, it is not unexpected that principals' beliefs in their ability to help at-risk students succeed correlates with their acceptance of the responsibility for helping students succeed. It was hypothesized that principals who do not believe in themselves are of little help in assisting at-risk students to succeed. Principals who do not believe in themselves are more likely to place blame on others, and are unlikely to accept responsibility for the students' success. Bandura (1977) maintains that the stronger the beliefs that people have in their own capabilities, the greater the efforts and the longer they will persist in the efforts when the task gets difficult to reach their outcomes. Implications for this finding suggest if we want principals to accept responsibility for helping at-risk students succeed, the principals need to work on their self-efficacy.

Slightly less than 50% of the principals indicate they believe all students have the potential to learn. Student potential orientation examined the factors related to principals' beliefs in students. A number of factors are significantly related to principals' belief that all students have the potential to learn. These factors are self-efficacy ($r = .44$), responsibility acceptance ($r = .36$), and problem acceptance ($r = .34$).

It is not surprising that principals' beliefs that they can help students achieve is correlated with principals' student potential orientation ($r = .44$). It appears that if principals have confidence in their ability, then they see the students in a more positive light. These principals are not threatened by at-risk students nor the problems that could impede their success. If principals do not believe in their ability to help at-risk students achieve they are less likely to do anything to see that this happens. Principals must believe all the students have the potential to learn. To assure that this happens, principals must be provided with the information that will help them to understand at-risk students. These principals should also be provided with meaningful experiences that will convince them that all students can achieve.

It was expected that responsibility acceptance would be correlated with principals' belief that all students can learn. Principals who accept responsibility for at-risk students apparently do so because they believe all children have the potential to learn. The principals who feel responsible for the success of the students accept responsibility for the problems of at-risk students. If principals do not accept responsibility for at-risk students it is an indication that they do not accept the blame for the students lack of learning. They may place blame for the lack of achievement on others. Principals are unlikely to accept responsibility for the success of the students when they do not believe students can achieve. If we want students to achieve, principals must accept responsibility for the success of the students. In order for this to happen, principals must be provided with information and experiences to enhance their understanding about at-risk students. If this happens, they are more likely to accept full responsibility for the success of the students.

It was expected that principals' acceptance of the problems of at-risk students would be correlated with their belief that all students can learn. Principals who accept the problems of at-risk students and are not threatened by these problems are more likely to believe that students have the potential to learn. Conversely, if principals reject the problems of at-risk students then nothing gets done to help the students. If all students are to achieve, then educators must help principals become aware and accept the problems of at-risk students.

Three factors predict principals' willingness to change to meet the needs of at-risk students. In the order of their contribution to the prediction equation, the factors are: responsibility acceptance, self-efficacy, and problem acceptance. Responsibility acceptance is the strongest predictor of principals' willingness to change; it contributes to 25% of the variance. Self-efficacy and problem acceptance also contribute to the equation, but were to a much lesser extent (8% and 3% respectively). It is not surprising that responsibility acceptance emerged as the strongest factor in predicting principals' willingness to change to meet the needs of at-risk students as stated previously; no one changes until they accept responsibility. If

principals do not accept responsibility for the success of at-risk students, no change will take place. This finding is consistent with Sweeney (1982) who maintains that principals' leadership behaviors do make a difference in schools and in student achievement. A major challenge for educators is to help principals accept responsibility for educating rural at-risk students. If principals are likely to be willing to change, they must be provided with resources that will help the students meet success. The principals must be provided with on-going experiences to strengthen their instructional leadership practices in an environment that is supportive of their efforts.

In summary, the results are statistically significant, but may not have great practical significance; most of the correlations are between .30 and .50. The size of the N made them significant. The results also do not fully support the model for the present study. While results indicate there are important relationships between self-efficacy and the other factors that relate to willingness to change, it was not anticipated that responsibility acceptance would play such an important role in principals' willingness to change to meet the needs of at-risk students. It also appears that the relationship between these factors is interactive and complex, thus, it is less important to determine the specific weight and direction of the factors. One must understand that each factor is important and should be considered when working with principals to improve their leadership in working with at-risk students. This, in itself, is perhaps the present study's greatest contribution.

Limitations of the Study

The study had the following limitations.

1. The study was limited to rural Iowa secondary school principals. Thus, it may not be valid for urban or suburban principals or principals in other states.

2. Some of the demographics had small numbers; thus, results for such demographics, i.e., principals' gender, age classifications, and level of education should be viewed with caution.

Recommendations for Practice

For rural Iowa secondary principals who are concerned with improving their perceptions and beliefs to help at-risk students succeed, it is recommended that:

1. Since female principals appear to be ready and willing to change to meet the needs of at-risk students, hiring practices should intake more female principals at the secondary level.
2. Principals' level of preparedness is low. Therefore, more in-depth preservice and inservice training should be provided to principals to strengthen their preparedness, influence their self-efficacy, problem acceptance, student potential orientation, responsibility acceptance, and increase their willingness to change to meet the needs of at-risk students.
3. If we are to increase principals' willingness to change to meet the needs of at-risk students, we need to develop and implement ways to provide principals with information and experiences that enhance their preparedness, self-efficacy, problem acceptance, student potential orientation, and responsibility acceptance for addressing the needs of at-risk students.

Recommendations for Further Research

Future research should center upon the following recommendations:

1. Further studies should investigate principals' perceptions of their abilities to meet the needs of at-risk students in other rural, urban, and suburban settings in other states to find out what they think about at-risk students.
2. A qualitative study using interviews should be conducted to find out more about why principals' beliefs about at-risk students are what they are. We need to learn more about the experiences they have had in their preparation programs and in the field. In addition,

the qualitative study might determine if there are other factors that influence principals' willingness to change to meet the needs of at-risk students.

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APPENDIX A

THE INVENTORY OF FACTORS RELATING TO PRINCIPALS' PERCEPTIONS FOR MEETING THE NEEDS OF AT-RISK STUDENTS

SELF-EFFICACY: Extent to which principals believe they can have a positive effect on the learning and achievement of students at risk.

9d. I am certain that I can make a difference in the lives of my students.

9e. I know my students will make sufficient academic progress for them to be successful at the next level of education or on the job.

9f. If I make a sincere effort, I can get through to even the most difficult or unmotivated students.

9j. I am effective in persuading students that they can be successful in school.

PROBLEM ACCEPTANCE: Extent to which principals believe that students at risk of school failure is a problem issue.

1a. The number of students with characteristics that impede learning has increased over the past five or ten years.

1b. Students at risk of school failure or limited life opportunities due to undereducation are a major national problem.

1c. The long-term cost of students dropping out of school far exceeds the cost of meeting the students' current needs so that they can continue their education.

1d Students at risk of school failure or limited life options due to undereducation are a problem in our district.

PREPAREDNESS: Level of principals' knowledge, training, and experience necessary to help students at risk achieve and succeed.

1e. I know the life circumstances that put students at risk.

1f. I can recognize the life circumstances that put students at risk.

1g. I know the behaviors students choose that put them at risk.

1h. I can recognize the student behaviors that put students at risk.

3b. The training and preparation I received prepared me to deal with students who have low motivation or history of behavior problems in schools.

3f. I know how to help students overcome the life/home situations that put students at risk.

STUDENT POTENTIAL ORIENTATION: Extent to which principals believe that all students are capable of learning.

2a. Educating all students should be a primary focus of the district.

4a. Every student is reachable.

4b. I assume all students are capable of learning at high levels given appropriate conditions.

RESPONSIBILITY ACCEPTANCE: Extent to which principals feel they are obligated to helping students at risk meet success in school.

5a. It is my obligation to make sure every one of my students achieves.

5b. I need to do more to address the needs of students at risk.

5c. It is part of my responsibility to keep students from dropping out of school.

5f. I can be counted on to help students achieve, even though it may be part of my official assignment, increases my workload, or causes me inconvenience.

8a. I need to change my professional practices as the needs of students in my school changes.

WILLINGNESS TO CHANGE: Extent to which principals are willing to change personal professional practices to meet the needs of students at risk.

8d. I am willing to learn more about teaching strategies and approaches and make changes where necessary to better meet the educational needs of students.

8f. I am willing to examine course content and make changes where necessary to better meet the educational needs of students.

8i. I am willing to learn more about parental and community involvement and make changes to help meet the educational needs of students.

8c. I am willing to learn more about what put students at risk of school failure or undereducation.

Information about you and your school:

1. Grade levels served in your building: _____

2. Numbers of students in your building: _____

3. Total number of years you have been a principal: _____

4. Your age
   - _____ 26-30
   - _____ 31-35
   - _____ 36-40
   - _____ 41-50
   - _____ 51-60
   - _____ 61 or older

5. Your gender:
   - _____ Male
   - _____ Female

6. Your preparation:
   - _____ Master's
   - _____ Specialist or CAS
   - _____ Ph. D.

APPENDIX B

HUMAN SUBJECTS APPROVAL FORM

Checklist for Attachments and Time Schedule

The following are attached (please check):

12. [X] Letter or written statement to subjects indicating clearly
   a) purpose of the research
   b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see Item 17)
   c) an estimate of time involved for participation in the research and the place
   d) if applicable, location of the research activity
   e) how you will maintain confidentiality
   f) in a longitudinal study, state when and how you will contact subjects later
   g) participation is voluntary; nonparticipation will not affect evaluations of the subject

13. [ ] Consent form (if applicable)

14. [ ] Letter of approval for research from cooperating organizations or institutions (if applicable)

15. [X] Data-gathering instruments

16. Anticipated dates for contact with subjects:
   First Contact: September 20, 1991 (Month/Day/Year)
   Last Contact: October 31, 1991 (Month/Day/Year)

17. If applicable, anticipated date that identifiers will be removed from completed instruments: [illegible] (Month/Day/Year)

18. Signature of Student Investigator: [signature] Date: [illegible]

19. Decision of the University Human Subjects Review Committee:
   [X] Project Approved ___ Project Not Approved ___ No Action Required

Patricia M. Keith
Name of Committee Chairperson

[illegible]
Date

[signature]
Signature of Committee Chairperson

The data collection will take approximately [illegible]

Two Black Leaders, Pass [illegible]

APPENDIX C

INVENTORY OF EDUCATORS' READINESS FOR MEETING THE NEEDS OF STUDENTS AT RISK (IERMNSR)

SCHOOL READINESS FOR MEETING THE NEEDS OF STUDENTS AT RISK

A study conducted in cooperation with the FINE Foundation and Iowa State University

by

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Sue Bish, Assistant Principal
Estherville Middle School

Jean Peterson, Assistant Principal
Saydel High School

Jim Quamstrom, Principal
Gilbert Junior Senior High School

Lee Halverson, At-Risk Consultant
Heartland AEA 11

First, we will need some information about you.

Grade levels in my classes

Number of students in my classes

Subjects I teach

Age:

___ 21-25
___ 26-30
___ 31-40
___ 41-50
___ 51-55
___ 56-60
___ 62 or older

Years of teaching:

___ 1-3
___ 4-10
___ 11-20
___ 21-30
___ 31 or more

Education:

___ Bachelor's
___ 1-15 credit hours
___ 16-30 credit hours
___ Master's
___ Master's +

Gender:

___ female
___ male

READINESS FOR MEETING THE NEEDS OF STUDENTS AT RISK

Following are nine sets of statements relating to various aspects of school readiness for meeting even more success with students at risk. For each statement you are asked to respond in two ways.

First indicate, by circling the appropriate number in the column to the right (behind) the statements, the degree to which you agree or disagree with the statement. Complete all the items in the set.

Next, indicate by circling the appropriate number to the left (in front) of the statement indicating the degree to which you think most teachers in your building would agree or disagree with the statement. Complete all items in the set.

Please use the same prodedure for each set of questions.

The scale to be used is as follow:

1 strongly disagree
2 disagree
3 neutral
4 agree
5 strongly agree
NA not applicable in this situation

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree NA not applicable

As relates to **OTHERS** in the building		As relates to **ME**
	SET ONE	
1 2 3 4 5 NA	a. The number of students with characteristics that impede learning has increased over the past five or ten years.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. Students at risk of school failure or limited life opportunites due to undereducation are a major national problem.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. The long-term cost of students dropping out of school far exceeds the cost of meeting the students' current needs so that they can continue their educations.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. Students at risk of school failure or limited life opportunites due to undereducation are a problem in our district.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. I know the life circumstances that put students at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. I can recognize the life circumstances that put students at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. I know behaviors students choose that put them at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	h. I can recognize student behaviors that put them at risk.	1 2 3 4 5 NA
	SET TWO	
1 2 3 4 5 NA	a. Educating **all** students should be a primary focus of the district.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. District administrators should lead efforts to educate **all** students.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. District administrators should lead in the development of programs for students at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. District administrators should expect all teachers to accept responsibility for educating **all** students.	1 2 3 4 5 NA

1 strongly disagree **2** disagree **3** neutral **4** agree **5** strongly agree **NA** not applicable

As relates to **OTHERS** in the building		As relates to **ME**
1 2 3 4 5 NA	e. District administrators should provide teachers with the resources they need to help **all** students meet success.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. District inservice offerings should be a useful source for me to learn strategies and approaches for working effectively with students at risk.	1 2 3 4 5 NA

SET THREE

1 2 3 4 5 NA	a. I know how effectively to teach at-risk students.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. The training and preparation I received prepared me to deal with students who have low motivation or history of behavior problems in school.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. My skills are best suited for students who are academically motivated and generally well-behaved.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. I hold consistently high standards for all students.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. I recognize students' strengths and weaknesses, both academic and social.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. I know how to help students overcome the life home situations that put them at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. I effectively design and use activities to match the individual interests and abilities of the students in my class.	1 2 3 4 5 NA
1 2 3 4 5 NA	h. Heterogeneously grouped classes provide the best environment for learning.	1 2 3 4 5 NA
1 2 3 4 5 NA	i. I am effective in helping students with their problems outside of class or school.	1 2 3 4 5 NA
1 2 3 4 5 NA	j. I am aware of the effects that parent expectations and parental involvement can have on students' school achievement.	1 2 3 4 5 NA

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree NA not applicable

As relates to **OTHERS** in the building		As relates to **ME**
	SET FOUR	
1 2 3 4 5 NA	a. Every student is reachable.	
1 2 3 4 5 NA	b. I assume all students are capable of learning at high levels given appropriate conditions.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. Students who are not interested in education and who continually misbehave should be kept in school so that trained teachers can help them improve.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. I feel positive about the students I am assigned to teach.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. When it comes right down to it, a teacher can't do much because a student's motivation and performance depends primarily on his/her home situation.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. Teachers can help most students overcome the home life circumstances that put them at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. I am able to control and even change my false beliefs, assumptions and stereotypes about students.	1 2 3 4 5 NA
1 2 3 4 5 NA	h. There are students in my classes whom I feel should not be in school.	1 2 3 4 5 NA
	SET FIVE	
1 2 3 4 5 NA	a. It is my obligation to make sure every one of my students achieves.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. I need to do more to address the needs of students at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. It is part of my responsibility to keep students from dropping out of school.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. When my students fail to achieve at high levels in my class, I feel that I have let them down.	1 2 3 4 5 NA

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree NA not applicable

As relates to **OTHERS** in the building		As relates to **ME**
1 2 3 4 5 NA	e. I need to encourage the development of effective alternatives to traditional school for students who are not interested in education or who continually misbehave.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. I can be counted on to help students achieve, even though it may not be part of my official assignment, increases my workload, or causes me inconvenience .	1 2 3 4 5 NA

SET SIX

1 2 3 4 5 NA	a. The district should allocate more resources to ensure that all students make academic progress.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. The district should fund alternative and experimental programs for students at risk, even if it reduces resources for my classes.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. The district should support additional training and development to help all staff work more effectively with students at risk.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. In times of scarce financial resources, meeting the needs of students at risk should be a high district priority.	1 2 3 4 5 NA

SET SEVEN

1 2 3 4 5 NA	a. In our district, we should constantly examine practices and procedures to determine if they need to be changed to meet the needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. In this school, we should consider more flexible **scheduling** if it will help meet the educational needs of more students.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. In the school, we should re-examine and consider changing our **attendance** policies to help meet the educational needs of students.	1 2 3 4 5 NA

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree NA not applicable

As relates to **OTHERS** in the building		As relates to **ME**
1 2 3 4 5 NA	d. In this school, we need to examine and consider changing teaching **methods** to help meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. In this school, we need to examine and consider changing **grading practices** to help meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. In this school, we need to examine and promote more **parent and community involvement** to help meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. In this school, we need to examine and consider changing **grouping practices** to help meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	h. In this school, we need to examine and consider changing **educational program/requirements** to help meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	i. In this school, we need to examine and consider changing **course offerings/content** to help meet the educational needs of students.	1 2 3 4 5 NA

SET EIGHT

1 2 3 4 5 NA	a. I need to **change my professional practices** as the needs of students in my school change.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. I am willing to **collaborate** with administrators and other teachers to make changes where necessary to better meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. I am willing to learn more about **what puts students at risk** of school failure or undereducation.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. I am willing to learn more about teaching **strategies and approaches** make changes where necessary to better meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. I am willing to examine my **teaching methods** and make changes where necessary to better meet the educational needs of students.	1 2 3 4 5 NA

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree NA not applicable

As relates to **OTHERS** in the building		As relates to **ME**
1 2 3 4 5 NA	f. I am willing to examine **course content** and make changes where necessary to better meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. I am willing to **individualize instruction** to better meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	h. I am willing to examine **assignments** I give and make changes where necessary to better meet the educational needs of students.	1 2 3 4 5 NA
1 2 3 4 5 NA	i. I am willing to learn more about **parental and community involvement** and make changes to help meet the educational needs of students.	1 2 3 4 5 NA

SET NINE

1 2 3 4 5 NA	a. If I had it to do over again, I would still choose to become a teacher.	1 2 3 4 5 NA
1 2 3 4 5 NA	b. There is room for me to improve as a teacher.	1 2 3 4 5 NA
1 2 3 4 5 NA	c. I expect all students in my classes, including those with low ability and/or poor motivation, to complete high school.	1 2 3 4 5 NA
1 2 3 4 5 NA	d. I am certain that I can make a difference in the lives of my students.	1 2 3 4 5 NA
1 2 3 4 5 NA	e. I know my students will make sufficient academic progress for them to be successful at the next level of education or on the job.	1 2 3 4 5 NA
1 2 3 4 5 NA	f. If I make a sincere effort, I can get through to even the most difficult or unmotivated students.	1 2 3 4 5 NA
1 2 3 4 5 NA	g. I have confidence in myself as a teacher when my students are academically motivated and generally well-behaved.	1 2 3 4 5 NA

1 strongly disagree **2** disagree **3** neutral **4** agree **5** strongly agree **NA** not applicable

As relates to **OTHERS** in the building		As relates to **ME**
1 2 3 4 5 NA	h. I have confidence in myself as a teacher when my students have low motivation or have a history of behavior problems.	1 2 3 4 5 NA
1 2 3 4 5 NA	i. I have tangible evidence that I am effective in increasing the academic achievement of all students in my classes.	1 2 3 4 5 NA
1 2 3 4 5 NA	j. I am effective in persuading students that they can be successful in school.	1 2 3 4 5 NA

Read each situation carefully. Consider similar situations from your own teaching experiences. Indicate how effective you would be in handling each situation and how effective you think most other teachers on your staff would be in handling each situation by circling the appropriate numbers.

1. One of your students misbehaves frequently in your class and often is hostile. You have discovered his father is an alcoholic and quite likely abuses him and his mother. The family has little money. Today in class he began roughhousing with a friend. You tell both boys to take their seats and quiet down. He turns from you, says something under his breath, and swaggers to his seat. How effective would you be in responding to this student in a way that would win his respect so you could begin to help him with his problems at home?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

2. Several low-achieving girls appear to be getting very little from your class. They have begun to disrupt your lessons and occasionally "talk back." When you attempt to involve them in class work, they either make jokes or sit sullenly. How effective would you be in eliminating the disruptive behavior?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

3. You have a student who never hands in assignments on time, seldom gets to class on time, and nearly always forgets to bring his materials to class. Although he is very bright, perhaps even gifted, he is barely passing in most classes. You have discussed this with his parents, but they don't seem to understand the importance of school achievement. How effective would you be in motivating this student to take his achievement seriously?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

4. A new student has been assigned to your class. Her records indicate that she seldom does her homework and does not seem to care about her education. Her IQ score is 97, her achievement scores have been below the 30th percentile, and her reading ability is four years below grade level. How effective would you be in helping her increase her achievement scores?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

5. The student-teacher ratio in your class of lower achieving students is 20 to 1. You want to plan your lessons to meet the individual needs of the students. How effective would you be in designing activities to match the individual interests and abilities of the students in your class?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

6. Because of repeated absences, one of your students is failing in most classes. She confides to you that she has given up and will drop out of school as soon as she is old enough. How effective would you be in persuading her to stay in school?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

7. Some of your students have been sleeping in class, and their absences have been increasing. They do poorly on in-class assignments and seldom turn in homework. You learn that they may be taking drugs. How effective would you be in helping the students with their drug problems?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

8. A student has started to miss your first period class more than once a week. On days when he is there, he sometimes falls asleep. When you investigate, you find that his achievement is falling in most of his classes. When you talk to him about it, you discover that he has taken a late evening job in a fast-food restaurant to earn enough money to pay for his new car. How effective would you be in persuading him that doing well in school is more important than a late evening job?

ME	1	2	3	4	5
	extremely ineffective		moderately effective		extremely effective
OTHERS	1	2	3	4	5

Please answer the following questions to best rerepresent the situation at your school as you see it..

1. When students fail in this school, their failure is probably due to ...

2. My effectiveness as a teacher with at-risk and underachieving students is

facilitated by ... made difficult by ...

APPENDIX D

CRONBACH ALPHA FOR THE INVENTORY OF EDUCATORS' READINESS FOR MEETING THE NEEDS OF STUDENTS AT RISK (IERMNSR)

Cronbach Coefficient Alphas for self-efficacy, problem acceptance, preparedness, student potential orientation, responsibility acceptance and willingness to change.

Factors	Set	Number of Items	Items	Cronbach Alpha (Internal Consistency)
Willingness to change personal professional practices	8	9	8a – 8i	.87
Support for changing district and school practices	7	9	7a – 7i	.82
Support for action by district leadership	2	6	2a – 2f	.81
Personal efficacy	9	10	9a – 9j	.77
Awareness of problem	1	8	1a –1h	.73
District support	6	4	6a – 6d	.72
Feelings about principals' personal obligations	5	6	5a – 5f	.69
Knowledge of strategies and approaches	3	10	3a – 3j	.61
Feelings about students	4	8	4a – 4h	.58